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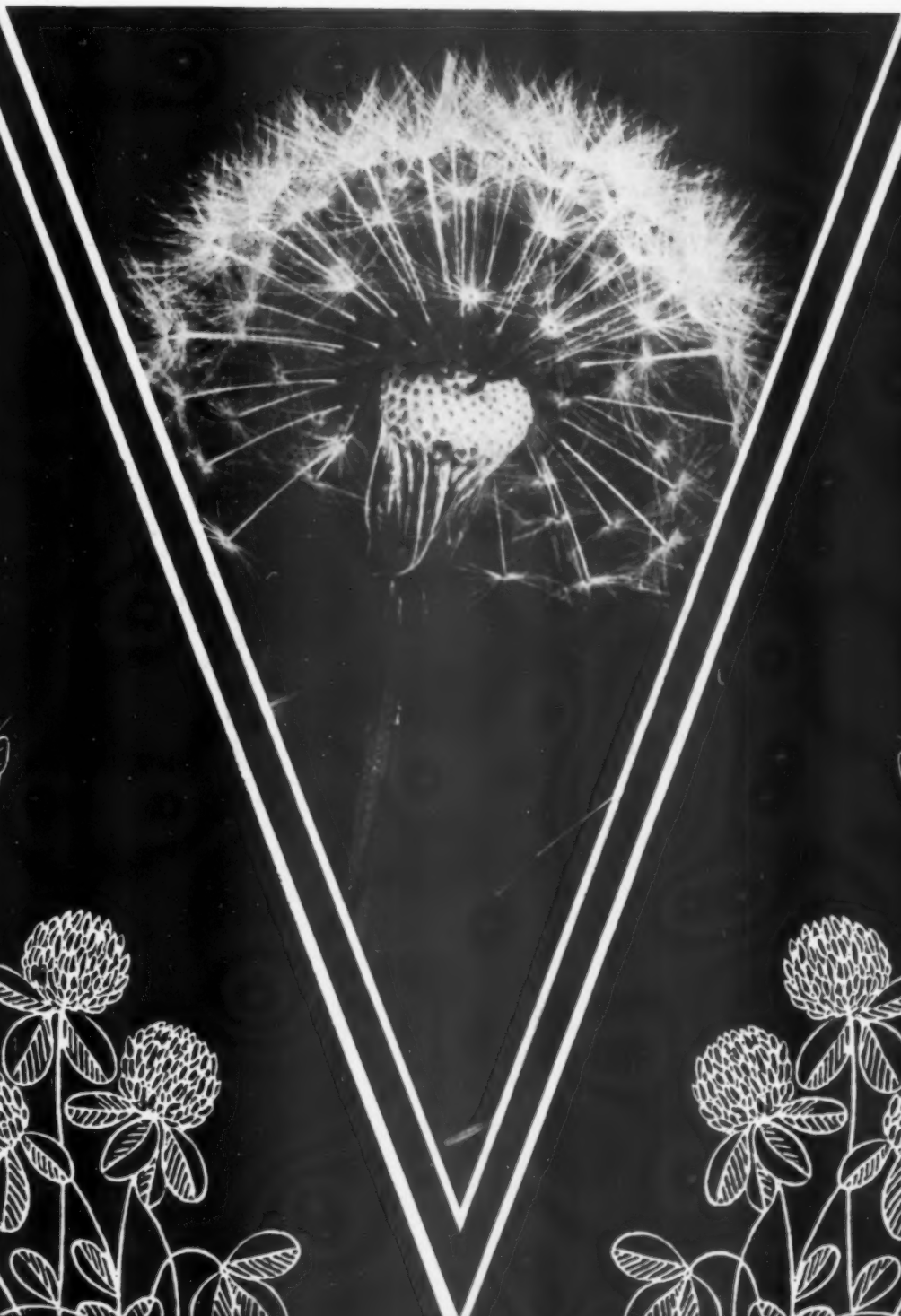
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AMERICAN BEE JOURNAL

March



1943





WITHSTANDS HOT WEATHER

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Stretched cells reduce the brood area of combs.

Drones eat up your profits.

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21 YEARS COMMERCIAL QUEEN BREEDERS
OLDEST COMBLESS PACKAGE BEE SHIPPERS
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Also Queens From Stock Bred For Resistance

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Queens in 100 lots or more 75 cents per hundred
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Queens Postpaid.

PACKAGES . . . QUEENS

Queens and Package Bees available for immediate shipment.

TERMS CASH WITH BOOKING.

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DONALDSONVILLE, LOUISIANA

Attention!

We have completely booked our supply of Package Bees and Queens for delivery in April and May.

We thank those of you who have placed your orders early. To those that we could not accept your order, we are extremely sorry. We had rather return your order than promise that which we cannot do.

NO CHANGE IN PRICE FOR JUNE

ROSSMAN & LONG

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Moultrie, Ga.

BUY LOTZ SECTIONS

and Solve Your Packaging Problems

1943 is a year of problems for the beekeeper. Sugar rationing has created a demand for honey.

Conservation Order M-81 issued by the War Production Board has banned the manufacture of tin containers less than 5 gallon size and limited the manufacture of caps for glass containers.

PRODUCE COMB HONEY

It furnishes its own container

Lotz sections will give your comb honey a boost. They will save you valuable time because they will not break when being folded. Less breakage means lower cost. And too, the smooth white appearance of the surrounding section adds sales appeal.

August Lotz Company
Boyd, Wisconsin

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Editors: G. H. Cale, Frank C. Pellett, M. G. Dadant, J. C. Dadant

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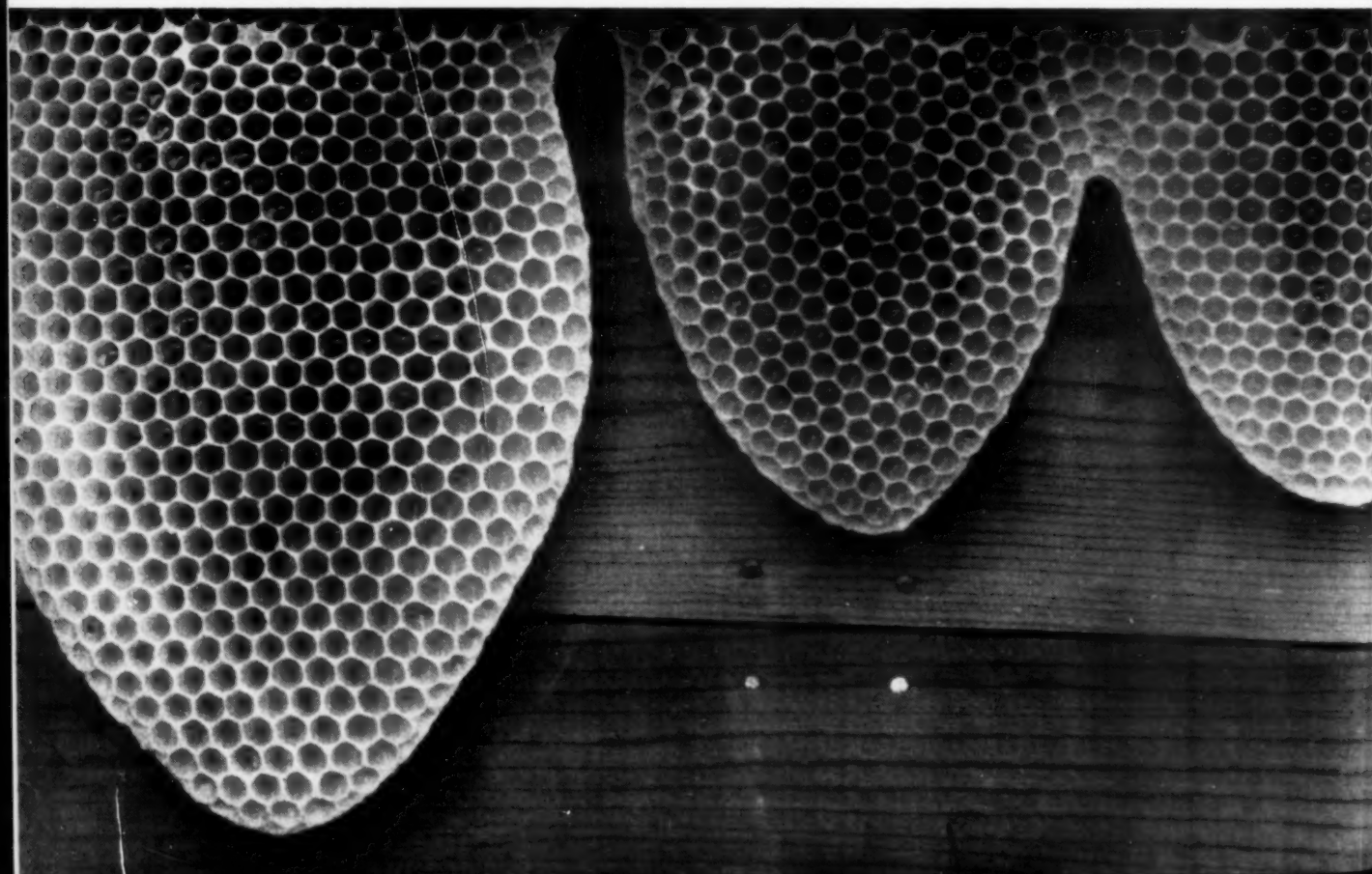
Seed pods of the black locust. Tightly they cling, all winter, to drop at the foot of the tree, thus insuring a dense growth that soon makes a locust grove or forest.



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New, white wax, in fingers that will later join to make a whole comb. b. It takes a lot of bee power to make wax this way. Often on full sheets of foundation they will quickly draw out a new comb in a few short hours.



Many a Burr Comb Makes a Pound

MAGDALENE LENGES, Huntington, Indiana



HELP KEEP THEIR SHOES DRY

If you follow Catechist Lenges advice, you may be doing just that, as much of the shoe preservative used for fighting men's shoes contains a generous amount of beeswax. Also now is the time to sort out those poor old combs, fix up the frames and not only get that wax into service but start yourself some brand new combs that will stand up for years.

IS YOUR BEESWAX SAFE?

After you have scraped together all the wax you can, don't take a chance on losing it—by fire, by moth, or by any storage damage. Send it to us. We store it, under guard, protected by automatic sprinklers against fire, with no charge to you. It is also fully insured. You may sell it when and where you will.

Best of all, turn it into Dadant's Foundation. Dadant's Crimp wired Foundation will give you everlasting combs; Dadant's Surplus will produce quality honey

for you. Ship at once. Include cake wax, bee combs, or slumgum. You get a credit memo and freight is charged to your account. We will buy, if you wish, at 41 1/2 cents cash; 43 1/2 cents trade. On 100 lbs. or more of clean wax, we pay the freight. (Prices are subject to change without notice).

We supply beeswax for many defense purposes so as soon as we have your wax it may actually help "Wax the Way to Victory."



DADANT & SONS : Hamilton, Illinois

EDITORIAL

HELP FOR CLOVER SEED GROWERS

THE government is offering encouragement to farmers who grow seeds of hay and pasture crops in the form of loans to support prices. Certified seed commands a higher loan rate than common seed but the rate is high enough to insure against loss in case of a drop in demand. Alfalfa seed is at the rate of from 28 cents per pound for regular seed to 37 cents for certified seed. Sweet clover is rated at from six cents to 13 cents and red clover from 25 to 31 cents.

In view of the pressure which has been brought to induce the planting of soy beans, the beekeeper will find a measure of reassurance in this effort to secure an ample supply of the staple legumes.

— v —

HONEY FOR SPREAD

RATIONING is sure to bring about many changes in food habits and when the emergency has passed some products will find that they have gained while others have lost their place in the market. The acute shortage of butter in many places has resulted in a greatly increased use of margarine. Where neither can be had housewives are searching for some satisfactory spread.

Mrs. Frances R. Williams of Winchester, Massachusetts, has been experimenting in the making of a spread by the use of one part of fat and two parts honey. With a little spice or herb seasoning she has found that it serves very well.

If the war continues over a long period we can expect many new developments which will make use of honey providing the supply is sufficient to encourage such investigations.

— v —

BEEES AND COTTON

LOSSES of bees from the spraying of cotton fields are very serious in many southern localities. Apparently the beekeepers have been able to secure but little cooperation from the cotton growers in protecting the bees and many beemen have been compelled to move to safer locations.

Unlike the fruit growers the cotton growers do not seem to appreciate that they may profit from the presence of the insects. In 1918 in an article

in the Journal of Heredity, R. M. Mead called attention to the fact that beekeeping may increase the cotton crop. He said, "It is evident from the increased yield of bolls secured in the long-pistilled Durango variety through artificial pollination that the presence of additional pollinating insects would aid in reducing the high percentage of shedding. The value of honeybees in this connection is recognized in some localities and it would seem that growers of long stapled varieties might find beekeeping a distinct advantage."

There are other reports which verify the value of the honeybee in the pollination of cotton blossoms. If the grower can be shown that the size of his crop depends to some extent upon the number of honeybees present perhaps he may use more care to avoid their destruction.

— v —

NEW SWEETENER

THE sugar shortage is bringing numerous new products to public attention. One which is advertised as a "Sugar Stretcher" is Diamond 29 Syrup. It is made of corn, cane and honey with the honey flavor said to be mildly predominant. It is a clear, amber color.

The Glass Packer in describing this new product says that it can be used to sweeten beverages, jellies, jams, stewed fruits, candies, cereals and deserts. That would indicate that it is designed to meet about any demand for which sugar is used.

In this case honey gains rather than loses from the use of the new product since it is likely to find more new outlets than displacements.

— v —

BEEES AND SOYA BEANS

THE great increase of soya beans as a farm crop is a matter of concern to beekeepers because they are often used to replace legumes which yield honey abundantly.

This magazine has tried for many years to find evidence of locations where the soya bean might yield honey but thus far the search has been disappointing. There are occasional reports of bees working on soya beans freely for a few days and a few instances where some surplus honey has been

secured. After long search we are compelled to conclude that the soya bean is not a good honey plant anywhere.

An Iowa beekeeper reports to us that while the bees get a little nectar at times that fully 75 per cent of the bees working on soya beans are bringing in pollen. He has found that in his neighborhood most of the bees were working on the one variety, the Virginia, and that they paid little attention to the Manchu which was blooming at the same time. A hive on scales showed but little gain when the bees were on the beans over a four year period. At times they showed a gain as high as four pounds per day for about four days when it tapered off to nothing by the tenth day.

The fact that the bees sought one variety indicates that it yields more nectar than others and it might be possible by selection to develop nectar production to a point worth while. We are still anxious to learn of any cases where the bees do work soya beans to any extent and would like information as to the variety visited and the kind of soil on which it grows.

— v —

HONEY A LUXURY

ANOTHER example of the public attitude which assumes that honey is a luxury comes from Australia. The December 15, issue of Australasian Beekeeper states that the Ministry of Food for Great Britain has refused to make any purchases of honey from abroad. The reason as given is that "Honey is a food for the rich and that continued importation is consequently unjustifiable."

Since Australia depends to a large extent upon the exportation of her surplus to England this attitude is serious for the beekeepers of that country.

Since honey is so generally regarded as a luxury it is rarely rationed and in times like these prices rule high. Since more honey is now produced than can be absorbed in a luxury market it is important to establish a demand which recognizes it as a staple. In times of stress luxuries are first to suffer and last to recover when conditions improve.

— v —

THE GERMANS MAKE WAX

THE Germans are expert in making substitutes for articles in short supply. Probably nowhere in the world are the products of the beehive more

appreciated than in that country. The number of members in beekeeping societies is amazing to us.

Of late they are reported to be making a wax from the flax plant which corresponds very closely to beeswax. In wartime there is a greatly increased demand for beeswax since it is used for so many purposes with implements of combat. In peace time the Germans imported large quantities of hive products since their own production fell short of their needs. In wartime the need is greatly increased. One wonders how far this wax from flax will compete with the beeswax when peace comes again.

— v —

SOME FAMOUS BEEKEEPERS

IN England many famous men take a serious interest in beekeeping. David Lloyd George who was premier during the first World War often appears at bee meetings and his picture frequently appears with groups of beemen in English publications.

Other Englishmen known the world over who are claimed by the beekeeping fraternity are the late Rudyard Kipling, Sir Arthur Conan Doyle and Sir Oliver Lodge. Field Marshal Lord Methuen is another prominent figure who keeps bees.

— v —

BETTER BEES OR BETTER BEE PASTURE

IN 1872, D. L. Adair, in his "Progressive Bee Culture," wrote that when Mr. Colvin in the report of the Patent Office stated that an apiary might be made to yield fifty pounds of honey for each hive, few believed it. In that day average yields were low and such crops as are now common were unknown. Even today there are many in European countries who refuse to believe that the yields commonly reported in American apiaries are actually harvested.

Most certainly we are getting far larger crops than was the case fifty years ago. Perhaps we have improved our bees by selecting breeding stock from the heavy producing colonies; perhaps we have better equipment or it may be more expert beekeepers. It may be that the larger yields are the combined result of all three. In any event there is more honey.

What Are Bees Worth ?

Have you ever tried to answer that question? Their value as pollinators is vastly greater than all the honey and wax they produce. Maybe you never thought of them in that light.



The "Food for Victory" program will fail without honeybees. Farmers, orchardists, and thousands of others raising fruit, field and forage crops have taken honeybees too much for granted. The bees were usually "there" to fertilize their crops, without which the seedings would have been a failure.

This is evident in areas where poor honey conditions have forced beekeepers to move thousands of colonies of bees to other states. There, with the bees suddenly removed, field crops, such as alfalfa and sweet clover, seed poorly. In areas where bees are usually present and seldom moved, they seldom get credit for the pollination they do.

Seeds will be needed in 1943 more than ever before and perhaps for years after peace, especially if we are to help "reseed" other countries now laid waste. Honeybees will play an increasingly important part. Toot your own horn! Be sure your bees get credit in your locality for the pollination they do. The Industry may need this good will after the war.

G. B. LEWIS COMPANY : : : Watertown, Wisconsin

BRANCHES: COLONIE & MONTGOMERY STS., ALBANY, N. Y., 1117 JEFFERSON ST., LYNCHBURG, VIRGINIA; 118 SO. LIMESTONE ST., SPRINGFIELD, OHIO; 214 PEARL ST., SIOUX CITY, IOWA

SEND YOUR ORDER TO OUR OFFICE NEAREST TO YOU

Package Bees

QUEENS

Italian—Caucasian

PRICES

(TO MAY 20TH)

| Lots of: | Queens | 2-Lb. | 3-Lb. | 4-Lb. | 5-Lb. |
|------------|--------|--------|--------|--------|--------|
| 1 to 24 | \$.90 | \$2.95 | \$3.80 | \$4.60 | \$5.35 |
| 25 to 99 | .85 | 2.80 | 3.60 | 4.35 | 5.05 |
| 100 to 499 | .80 | 2.65 | 3.40 | 4.10 | 4.75 |

(Queenless Packages—Deduct Price of Queen)

Book your order now. All indications point to a heavy demand for packages and queens the coming season. We are making every effort possible to produce at least as many packages and queens as last season, but please help us as much as possible by placing your order as early as you can. You have the privilege of reducing or cancelling at any time before the bees are shipped.

— ORDERS BOOKED WITHOUT DEPOSIT —

To Our Bee Supply Customers:

We are sorry to announce that due to difficulty in obtaining materials, and our desire to operate our bees to capacity, we are forced to discontinue the manufacture of bee supplies for the present. However, we still have a few supplies and a fair assortment of foundation on hand, at 1942 catalog prices as long as they last

The STOVER APIARIES
MAYHEW, MISS.



This photo shows a portion of one of our queen yards containing over 6,000 nuclei

ITALIAN QUEENS AND BEES

2 Lb. packages with queen\$3.00 3 Lb. package with queen\$4.00
Extra Queens \$1.00 each

OVERBEY APIARIES, BUNKIE, LOUISIANA

YORK'S Package BEES and QUEENS

Quality Bred Italians

Due to prevailing conditions, our supply of package bees and queens will be limited. We have exhausted ourselves to secure ample material well in advance of the season without success. We have no assurance that restrictions on the limited supply will permit us to secure the necessary material and if so, it may be late. It is our desire to take care of as many of our old customers as our present supply of material or cages will permit, declining to accept orders for 500 or more packages until further notice. We will continue our efforts to secure the supplies and if we succeed in the near future, we will be in position to handle a much larger volume than we now predict. However, until then we must stay within bounds and promise no more than we can do under present conditions.

Young Laying Queens and Package Bees with Queens

| Quantity | 1 to 24 | 25 to 99 | 100 up |
|----------------------|-------------|-------------|-------------|
| Queens | \$.90 each | \$.85 each | \$.80 each |
| 2-Lb. Packages | 2.95 each | 2.80 each | 2.65 each |
| 3-Lb. Packages | 3.80 each | 3.60 each | 3.40 each |
| 4-Lb. Packages | 4.60 each | 4.35 each | 4.10 each |
| 5-Lb. Packages | 5.35 each | 5.05 each | 4.75 each |

Small queen orders shipped by mail, postpaid. Package bees by express collect, ONLY. Queens by air mail, add 5 cents per queen. Queens clipped, add 10 cents per queen. Queenless packages, deduct price of queen.

YORK BEE COMPANY (The Universal Apiaries) Jesup, Georgia, U.S.A.

PACKAGE BEES AND QUEENS

Prompt Delivery Guaranteed on all Advanced
Booked Orders

We are entering our sixth year of our Famous PROGENY--TEST Method of Queen Breeding and our fourth year of Breeding of Daughters of Stock Bred for Resistance to A. F. B.

We are fully booked for APRIL PACKAGES. Send your orders for MAY shipment and best available dates will be given you. While packages may be short, queens will be more plentiful with us.

| | 2-lb. Pkg. Bees with Queen | 3-lb. Pkg. Bees with Queen | Single Queens |
|---------------|----------------------------------|----------------------------------|------------------|
| 1 to 10 at | \$2.95 | \$3.80 | \$.90 |
| 11 to 50 at | 2.80 | 3.60 | .85 |
| 51 to 100 at | 2.65 | 3.40 | .80 |
| 101 to 500 at | 2.50 | 3.20 | .75 |

GARON BEE COMPANY

Donaldsonville, La.
Telephone 8614, Telegrams, Western Union

WARTIME BEEKEEPING CONFERENCE

CHICAGO, ILLINOIS, JANUARY 24-27, 1943

IN response to a call issued by James Gwin, president of the American Honey Producers' League, announced in the January issue of the American Bee Journal, representatives of honey producers and allied industries assembled in Chicago on the above dates. The committees appointed by Mr. Gwin, namely (a) the Honey Industry Cooperation for Our War Effort and (b) Organization Improvement committee met in joint session at 1:30 p. m., January 24.

Many subjects were discussed including the needs of the industry from the standpoint of obtaining necessary beekeepers' supplies and containers, the deferment of beekeepers by draft boards, the sugar situation for 1943 and 1944, proper contacts in Washington with both the OPA and WPB, importance of beekeeping from a pollination standpoint, desirability of getting recognition for our industry as a productive industry rather than having it in a department where most efforts are directed to the destruction of harmful insects.

Long discussions were had by various committees but the most important one from the producers' standpoint was the organization of a national federation of state beekeepers' associations.

It was felt that by using the state organizations as a group, more permanent results could be obtained. Accordingly, the National Federation of State Beekeepers' Associations was proposed with the following purposes:

Section I. The purpose of the organization shall be to form a union of all the state beekeepers' associations in the United States for the following purposes:

1. To promote the general welfare of beekeepers and their associations.
2. To further research on bee culture and problems of honey production and distribution.
3. To cooperate with the American Honey Institute to increase the use of honey.
4. To serve as a clearing house for the dissemination of vital information to beekeepers.
5. To promote legislation and regulations as will further the interests of beekeepers or their organizations, and to oppose

legislation and regulations which would adversely affect their interests.

6. To hold an annual meeting and such other meetings as may be deemed desirable.

The following memberships were recommended:

Sec. I. Membership shall consist of state beekeepers' associations. Any state association may affiliate with the National Federation by so voting at any regular meeting.

Sec. II. Annual affiliation dues shall be 5 cents per member of such state beekeepers' association, with a minimum fee of \$5.00.

In order to better represent every section of the United States, it was decided to divide the country into five regions which are as follows:

Region 1—Washington, Oregon, California, Nevada, Arizona and New Mexico.

Region 2—Idaho, Montana, Wyoming, Utah, Colorado, North Dakota, South Dakota, Nebraska, and Kansas.

Region 3—Minnesota, Iowa, Missouri, Wisconsin, Illinois, Michigan, Indiana, Ohio, and Kentucky.

Region 4—Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, Pennsylvania, New Jersey, West Virginia, Maryland, Delaware, and Virginia.

Region 5—States of the Southern Beekeeping Conference including Texas, Oklahoma, Arkansas, Louisiana, Tennessee, North Carolina, Mississippi, Alabama, Georgia, South Carolina, and Florida.

The Federation is to be operated by a Board of Managers which will consist of one newly elected delegate from each affiliated State Beekeepers Association. These delegates will name a president, vice-president, and a secretary-treasurer at each annual meeting by electing them.

There shall be an Executive Committee to manage the affairs of the Federation at such times as the Board of Managers is not in session, and this committee will consist of the officers of the Federation (president, vice-president and secretary-treasurer), and in addition, two members elected by and from the membership of the

state beekeepers associations in each of the five regions in the United States. This will make a total membership of thirteen on the executive committee which shall have control during the year.

Beekeeping War Council

In order to show the full strength of the Honey Industry in matters which concern the industry as a whole, it was decided that an overall organization should be formed which would represent every phase of beekeeping. This is very important as our government officials at Washington and elsewhere give greater consideration to a group that is actually representative. Because of lack of proper organization, the producer in many cases has had to depend on other units of the industry to represent him.

The Beekeeping War Council is an organization intended to correlate the industry groups—The National Honey Association (packers, etc.), the Bee Industries Association (manufacturers), and the new Federation of State Beekeepers' Associations, (honey producers, queen breeders, package bee shippers, etc.).

Although the Council is now primarily concerned with the problems arising from the war, it is intended to be a permanent organization whose name will probably be changed after the war to American Beekeeping Council. Its constitution specifies a governing committee of nine men delegated by the member associations (five from the state federation two manufacturers and two packers), and eventually, a paid secretary chosen from outside this committee, whose office will become a clearing house for the whole industry on such matters as laws, prices, grading, trade practices, credit, research, etc.

This council is a logical and emphatic expression of the beekeeping industry's will to put its house in order, to work together continuously for stabilization and improvement. Evidence of its determination to bring about united action is the constitutional provision that **all actions must be supported by unanimous vote.**

The membership of the council at present is:

E. G. Brown, Iowa, chairman; W. E. Anderson, Louisiana, vice-chairman; E. B. Everitt, Pennsylvania, treasurer and acting secretary; Oscar

Schmidt, Michigan; Lewis M. White, Oregon.

The above five were chosen by the Federation of State Beekeepers' Associations temporarily.

Roy Grout, Illinois, and Alan Root, Ohio, (these two were chosen by the Bee Industries Association); R. F. Remer, Iowa, and J. H. Paton, New York, (these two were chosen by the National Honey Association).

Already work has started for a committee chosen from the above to contact the OPA at Washington, D. C., relative to simplifying and revising the extracted honey ceiling order MPR 275. This order was gone over very carefully by an efficient committee and the following were chosen from the Beekeeping War Council to contact OPA in Washington, D. C.:

Lewis M. White, Oregon, to represent beekeepers; R. F. Remer, Iowa, to represent cooperative packers; and J. H. Paton, New York, to represent packers.

Definite instructions were given to this committee in the form of written resolutions carefully considered at the meeting of the National Federation of State Beekeepers' Associations and unanimously approved by all present. The work of this committee is immediate and very necessary. Other committees have been appointed and the full organization will begin functioning at once.

What Each State Association Should Do.

Each state beekeepers' association should immediately consider the plan and vote on whether or not to join. Each association, in voting to join, should elect a delegate to act on the Board of Managers. No money should be sent in at this time because the organization does not yet have a secretary-treasurer.

As soon as enough states have voted to join to make it seem feasible, a meeting of the Board of Managers will be called by the committee on organization. They will then proceed to elect the officers, and the new secretary-treasurer will then request each state for the dues.

Just as soon as possible the state associations in each region should have a meeting in any way they may decide is most expedient and best, and elect two members from that region to act on the executive committee.

All of this information can be sent to the chairman of the committee on organization, H. J. Rahmlow, 424 University Farm Place, Madison or to any member of the committee on organization, which consists of: Prof. V. G. Milum, Department of Entomology, Urbana, Illinois; Dr. Russell Kelty, Michigan State College, East Lansing, Michigan; James E. Starkey, 404

State Library Building, Indianapolis, Indiana; and Dr. W. E. Anderson, State House, Baton Rouge, Louisiana.

Ceiling and Floor for Honey and Beeswax

A resolution was proposed and adopted unanimously as follows:

That the Secretary of Agriculture set a goal for honey production in 1943 at 275,000,000 pounds and that the Department of Agriculture make every effort to contact WPB to make available the necessary containers and equipment for production of same, and

That the Secretary of Agriculture set a goal for beeswax at 5,000,000 pounds, and

That price floors be established for honey and beeswax in order to give stability to the honey producing industry.

OPA Order MPR 275

Of great importance was the discussion of MPR 275, the extracted honey ceiling order issued by the Office of Price Administration, and its effects on the industry. It was evident that most honey producers are satisfied with the producer's ceiling of 12 cents per pound f.o.b. his station. Producer-packers and some large packers were very much dissatisfied with their ceilings under the formula type which the OPA had given them. Some sentiment was for fixed dollar and cent ceilings at the producer's level and at the consumer's level probably based on a price schedule of 30 cents for a one pound jar to the consumer.

Large packers operating under conditions of national distribution, advertising campaigns, and improved packaging and merchandising methods maintained that this basis was not high enough to allow them sufficient margin of profit. They mentioned a consumer level based on 35 cents for a one pound jar to the consumer and favored a formula type of ceiling with a "relief" clause written into the order. Thus if a packer under formula could not obtain a price for his product sufficient to make a suitable margin, he would be allowed to adopt the "relief" price as the ceiling at which he could sell honey.

The convention later adopted a resolution supporting a formula type of ceiling order. This resolution asked that the base price be taken as the packer's published price list during September, October and November, 1941. The resolution requested that the 102% be changed to 110% allowing a greater margin of profit; that 12 cents be used in computing permitted increase rather than 11.8 cents; that a relief price be based on a jobber's price of \$2.65 for 12 one pound jars f. o. b. factory; that MPR

255 and 256 covering the wholesale and retail price of honey be included in the amended MPR 275; and that the ceiling formula for bulk honey be simplified by allowing a maximum mark up of 15% plus warehousing and cost of transportation.

Ray Ainsworth, chief of the economics division, OPA, addressed the convention concerning MPR 275. Mr. Ainsworth pointed out that they were very much aware of the inadequacies of the order. He pointed out that the order didn't provide for certain increases in cost, e.g. shrinkage and increased cost of containers; that many packers had records which were inadequate to compute their selling costs; that certain packers did not have base prices since they packed no honey during the period specified; that some packers bought honey at a figure based on delivery to them rather than f.o.b. beekeeper's shipping point; that it had been discovered after the issuance of MPR 275 that a price war had been on during the base period resulting in an abnormal condition in the industry; and that the formula type of ceiling resulted in a situation that those who bought honey at the lowest figure during the base period were in the best position and those who had paid better prices for honey were at a disadvantage.

He stated that OPA was definitely opposed to formula type of ceilings and that the new order would probably carry ceilings for each size of container at each sales level, namely, the producer's level, the packer's level, the wholesaler's level and the retailer's level. He stressed that superiority of product, good will and sales differentials would be provided for in the new order. OPA hopes to issue the order in three weeks, but past experiences indicate that it will be longer than this period. **Both chunk honey and comb honey will be included in the new order in all probability.**

Other Speakers

Other speakers featured Mrs. Harriett Grace, of the American Honey Institute, who told interestingly of the program and accomplishments of the Institute. She also reported results of Dr. Elvehjem's research on vitamin content in honey which will be published soon. The results of this important work, showing the presence of vitamins in honey, will have far reaching influence on future use of honey and will be available to readers soon. Dr. Farrar spoke to the convention on methods of increasing the production of honey. There were many other interesting and informative talks by state leaders and officials.

H. J. Rahmlow
E. B. Everitt
L. C. Dadant

FEATURES



Wild Plum—(Photo by Paul Hadley, Piggott, Arkansas.)

MARCH, 1943

SPRING WORK IN THE APIARY

By HENRY J. RAHMLOW



These pictures are from Dr. C. L. Farrar, U. S. Bee Culture Laboratories, Madison, Wisconsin. This one shows an outdoor wintered colony with no hive insulation and the bees are not all on top of the frames, March 21, 1941.

IN just a short time honey producers will be busy with the important job of producing the 275 million pounds of honey the government has requested and which is so badly needed.

Reports from various sections of the country indicate that our first job will be to check on the stores to prevent starvation. This should be done as early in March as possible. We need have no fear of any bad effect from opening colonies for quick inspection on days when the bees can fly and I have done it many times on sunny days when too cold for flight.

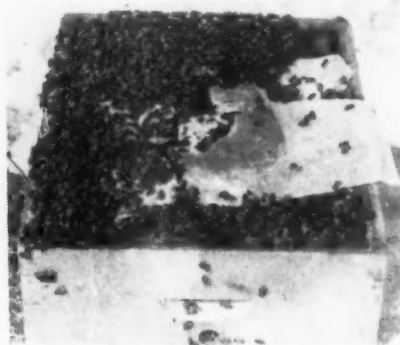
It will of course mean that packed colonies must be unpacked early. Far better to leave them unpacked than to starve. And what about the effect of leaving them unpacked. Dr. C. L. Farrar, of the Central States Bee Laboratory, has found that unpacked colonies produce more brood in proportion to the number of bees in the colony than do packed colonies under similar conditions. He has checked this again and again in different parts of the United States in cold climates. It means that the unpacked colonies produce more young bees and build up faster in late winter and spring, providing they have the right kind of stores.

I wish our breeders might see the hundreds of unpacked colonies around

Madison this winter as in winters past and observe that our colonies do not die because they are unpacked. And remember, in Wisconsin we cannot grow peaches, which means that the temperature drops below -15 degrees F. each winter, as that is about the temperature at which peach buds winterkill.

Why We Have Winter Losses

If colonies die out during winter, the principal reasons, according to Dr.



A strong colony, feeding on a cake of soy bean flour, supplemented with 26% pollen. Note the snow.

Farrar are:

1. Starvation.
2. Small population or old bees.
3. Lack of pollen to enable colonies to raise young bees.
4. Nosema infection.

Here in Wisconsin we have quit talking about how to pack colonies for winter. Instead we are learning how to produce strong colonies that

will come through the winter without packing. That has resulted in increased production because we then have stronger colonies during the honeyflow.

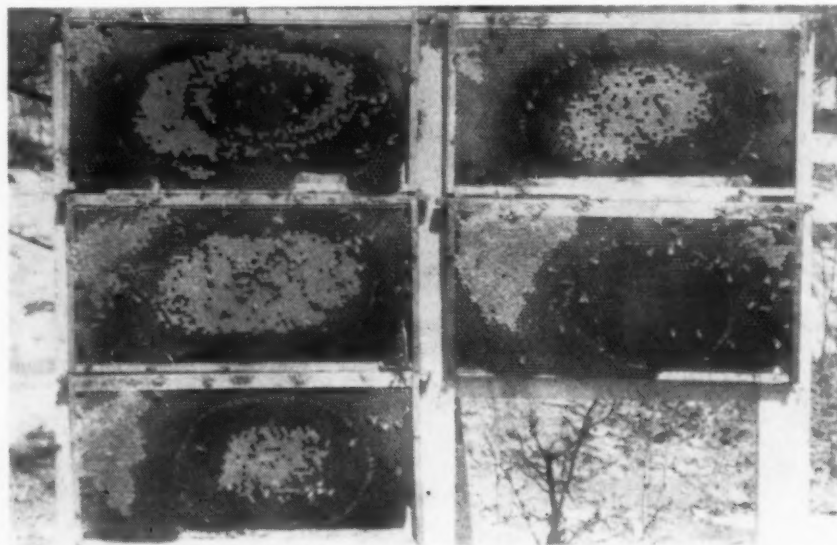
How to manage colonies to reduce labor and still build large populations will be the theme of this and succeeding articles. From my own experience and that of others in Wisconsin, the new methods we have learned from the work of the Central States Bee Laboratory have increased greatly our production and decreased the labor quite appreciably.

Our first job then is to check on the stores. If there is pollen available there will be brood reared during February and March. We know that in heavy brood rearing a strong colony may use from one to two pounds of honey per day.

Quick Method of Feeding

All colonies which are light must be fed. The quickest method of feeding sugar syrup, and the one requiring the least labor and especially requiring the least use of a truck and gasoline, is the sprinkling can method.

Make a sugar syrup of about one and one-half or two parts of sugar to one of water. Keep it warm—at a temperature of about 100 degrees F. but not so hot as to soften the combs. Pour the syrup into a sprinkling can, the holes of which have been enlarged with a small nail so the syrup will squirt out. Set a wash boiler next to the hive and then spray the syrup into an empty comb by holding it over



Brood on March 21, produced in uninsulated hive fed soybean flour and pollen.

the wash boiler to catch the overflow. By holding the sprinkling can at least 18 inches above the comb the syrup will enter the cells. When the frame is full, exchange it quickly with an empty comb in the brood chamber. Fill as many frames as are needed (from 3 to 5) and the job is done. On days when there is danger of robbing we have fed successfully by simply holding a frame from the brood nest over the brood chamber and spraying with a minimum of overflow. The job is done so quickly the robbers never catch up.

Pollen Needed In Spring

Our next most important problem is to provide pollen for spring brood rearing. We have recognized the real importance of pollen for only a short time, but once we have the experience of seeing how a colony builds up when there is plenty of pollen available, it is never to be forgotten.

I have seen colonies in the apiaries of the Central States Bee Laboratories which were fed a mixture of one part of trapped pollen and three parts of soy bean flour beginning about February 20, maintained extensive brood production in three to six frames before new pollen was collected. (Refer to Cir. E531 U.S.D.A.)

By April 20th they were so strong that from four to six pounds of bees were shaken into packages and there were enough left to care for the brood. They were all normal colonies which were wintered at Madison without covering.

I imagine during most years colonies in the South run for package bees do not produce more than six pounds of surplus bees by April 20th. From what I have seen I am sure that if southern breeders were able to feed the pollen and soy bean flour mixture they would not need to worry about cold and rainy weather delaying brood rearing. The northern honey producer should have his packages by April 15th to 20th or earlier to build them up in time for the main honeyflow from clover. Some day I really believe feeding pollen and soy bean flour will solve that problem and become a standard practice in both North and South.

But what can the honey producer, who does not have any pollen to mix with the flour, do this spring to stimulate brood rearing? Feeding soy bean flour alone will help a little, especially if the bees get some pollen from early sources—alders, soft maples, elms, and willows. We usually have a few days of good weather followed by periods of rain or cold. The pollen brought in is soon used up and then brood rearing slows down—just when we need it most to pro-

duce the bees for the main honeyflow.

How to Feed Soybean Flour Alone

We feed each good colony a cake of about one pound of a mixture of soy bean flour and sugar syrup about one week before we expect the first pollen from the field. The syrup is made of two parts of sugar to one part of water. The flour is added and stirred into a moderately stiff dough. The cakes are wrapped in waxed paper to keep them from drying out and placed on the frames directly over the brood nest, leaving the waxed paper as a cover over the cake.

Strong colonies, actively rearing brood will take down the cake in less than a week unless plenty of pollen is coming from the field. Those that do not take the flour should be examined for queenlessness or some other reason for the abnormality.

Kind of Soy Flour to Use

Do not use soy bean meal—it is too coarse and will not give results. The Central States Bee Laboratory has found that the flour produced by the heat-treated, expeller process is best, that produced by the solvent process is less satisfactory for feeding bees. It should have a low fat content—5% to 7%. It can be purchased from some of the large mills and is not high in price. The edible soy bean flour used in baking is too expensive.

It is doubtful if stimulative feeding of honey or sugar syrup will increase brood rearing, even if pollen is present except in colonies low in stores. We do know, however, that a shortage of pollen slows down brood rearing, and if none is available brood production will stop even though the queen may continue to lay eggs.

In far too many cases all the pollen has been used up before new pollen is available from the fields. If then the weather is cold and wet during the time the plants are blooming, we are in trouble. It may result in such a shortage of field bees during the main honeyflow that a full crop cannot be obtained.

Madison, Wisconsin.

— V —

DEPRECIATION ON EQUIPMENT

A question came up with me the past week which should be of general interest. I called at our local Internal Revenue Office to learn what annual depreciation I could deduct for bees, covering trucks, honey house equipment and hives. What do you consider the proper amount?

Walter Reppert,
Louisiana.

Whether or not these are correct

amounts, they have been accepted by the Internal Revenue, or at least there has never been any objection raised over them. All supers for honey, and the hive and its parts are based on a twenty year depreciation. Other similar equipment of wood receives the same depreciation value. Replacements needed to refill supers and hives from which combs or frames are discarded are figured as operating costs.

The depreciation on metal goods like extractors, knives and similar parts of metal and durable material are figured on a basis of ten years. Automobiles, trucks, and equivalent equipment are figured on a four year depreciation basis. Smokers, veils, knives and small equipment of like nature are charged each year as operating expense because of their relatively short life.

— V —

FIRE TO CLEAN OFF PROPOLIS

During the winter months all of my bee equipment is cleaned of propolis to be ready when needed in the spring, since I have no helper for my five outyards. This is how the excluders, bee escapes, inner covers, bottom boards and similar equipment are cleaned.

First I collect all bits of wax so badly needed at this time. The larger deposits of propolis are scraped off with a corn knife, but there still remains much propolis in the bee spaces and other parts of the equipment. I like to have these clean, since any remaining material seems to be an invitation to deposit more; especially true of excluders.

I have a large iron kettle, about twenty inches across, which is placed on something so the top will be waist high for convenience in working. Then I build a fire in the kettle, since a real bed of live coals is needed. Then, when ready, I slide the excluders across the top of the kettle, first one side and then the other, and you will be surprised how quickly it is done and what a neat job of cleaning is accomplished.

You must be careful and work fast, so as not to melt the metal that spaces the wires. The heat will not harm the wires, and it leaves a thin film of propolis on them for protection. Crumpled newspapers will answer the place of live coals if you only have a small amount of material to clean.

Chas. D. Handel,
Illinois.



THINGS TO DO IN THE SPRING

By CARL E. KILLION

TOO often beekeepers are forced to take time out during the honeyflow to do various jobs of work that should have been done in early spring. During the rush of work in the honeyflow and swarming, the comb honey producer has little time for anything else. It is nice when we have everything in "apple pie" order at the start of the flow. Most years there are a few odd jobs that still remain undone.

It is true that it requires considerable more time and work to prepare equipment for comb honey. Much of this work must be done as early as possible. Comb supers that have been used are one of the first to be taken care of. We do not wait for spring to start this very necessary part of equipment preparation. Nice clean sections are never placed in supers which have not been scraped free of propolis. Many times we see beekeepers do this very thing, putting sections into a super that is plastered with propolis. The producer in so doing cannot hope to keep the sections looking presentable very long. Just as soon as the bees are packed for winter we start our scraping of supers and separators. The rims of the supers are scraped as well as the inside. The separators are as smooth and fit as nicely as new ones after they are cleaned up. If section holders were used in our supers these would also be scraped, the bees delight in putting propolis beneath the sections along the edges of these holders. Small metal scrapers can be purchased at any hardware store. The beekeeper can make enough scrapers to last for several years from one old discarded hand saw. The blade can be cut into any size pieces the beekeeper desires.

The T tins from the comb supers, the springs, and bee escapes are cleaned by boiling them in lye water. The hotter the water, the better they are cleaned. The addition of more lye from time to time keeps the

solution up to full strength. After boiling the articles they are thoroughly rinsed with clear water to remove all traces of lye. After rinsing each must be absolutely dry before being stored away for future use. This cleaning of equipment pays dividends later when we are assembling the supers.

Honey sections are bought as early as possible. Sections that have been stored in too dry an atmosphere will break very easily. A remedy for this condition is to place the entire carton or cartons on a well dampened concrete floor for three or four days previous to folding. The boxes can be turned over occasionally and the floor sprinkled. A damp rug can also be thrown over the boxes. If the honeyflow was on and the beekeeper was in desperate need of sections he may be forced to dampen the V grooves of the sections with a stream of water. We do not recommend this practice at all since it leaves a fuzzy appearance at the corners. When sections are received on time it will allow for any of the many delays encountered in preparation of equipment. Foundation cannot be shipped in extremely cold weather. If one cannot get his foundation before cold weather in the fall, he must wait until safe shipping weather in the spring. The foundation must be stored at living room temperature 70 degrees just prior to cutting it. After cutting it can be placed in a much cooler place. One fine thing in getting an early start in super preparation is that the room temperature can be lowered slightly to fasten the foundation more easily. Trying to fasten foundation in extremely hot weather is very difficult and unsatisfactory.

After the separators and springs have been placed in the supers, the sections should be painted with paraffin and the stacks of supers covered with paper, cardboard or an inner cover to keep out dust.

An estimate must be made as to how many colonies are to be operated for comb. A bait section super must be prepared for each colony we intend to produce comb honey with. This bait super is exactly like any other comb super except one section of foundation is removed and a section of drawn comb used in its place. This bait section of drawn comb is placed

as near the center of the super as possible. The bait supers are stacked where they are within easy reach at the start of the season.

Bodies of honey to be used for spring feeding and expansion may have burr combs that need cleaning off. These bodies are cleaned up so there are no burr combs and the frames handle like new ones. Many of these bodies when they are given the colony will have to be handled during the swarm control and the honeyflow. The saving of time in handling a colony on these cleaned frames is worth more than the time spent in cleaning them up in the shop.

In our work we rear our own queens. To do this we must dip our queen cells, prepare cell bar frames in advance of the time for using them.

Equipment that is in need of some sort of repair is taken care of. The gathering of or preparing of smoker fuel is another spring time task. Beekeepers will differ in opinion as to the best smoker fuel. It generally sums up to what material is most available. We find crushed corn cobs the most plentiful and they give excellent results. We have a few feed mills in town and cobs can be had just for hauling them away. We have been lucky in getting them ground to a very convenient size.

There is more planning during the early spring days when we are doing our shop work. It is such a very good time to plan and look forward. One plan we have followed for a great many years is to make our early visits to all the outyards. We try to make our visit when bees are flying freely. This trip is to pick up any dead or weak colony. Aside from my instructions from an inspector's point of view, this is good advice for any beekeeper to follow. Should one of these dead colonies have A. F. B., we will never regret the trip. These trips may be made even before bees are unpacked.

Unpacking usually is under way by the middle of April. As the colonies are unpacked, they are checked again for dead and weak colonies and those needing feed. Time prevents going into detail on all the spring work that should be done, but every job that can be taken care of before the rush season should be done.

Illinois.

NATIONAL HONEY ASSOCIATION

In the report of the meeting of the wartime beekeeping conference appearing elsewhere in this number, mention is made of the National Honey Association. Some of our readers are not familiar with this association and as it is desirable that producers generally be better acquainted with the various organizations now operating in the beekeeping industry, the following may be of interest.

This association was formed at the national meeting at Niagara Falls in November, 1941. Its objectives as included in the constitution are as follows:

- A. Protect the interests of the honey industry and of the general public by insuring, insofar as is possible through cooperative effort, the availability of honey at all times.
- B. To obtain, through cooperative effort, favorable transportation and rates for honey containers and bee supplies.
- C. To gather together all available data and to institute research for additional data on honey, and to present such data to proper authorities to establish honey as a highly valuable and necessary food.
- D. To cooperate with the entire honey industry to increase the recognition of the health qualities, the quick energy value, and the other desirable nutritional qualities of honey among the general public and to increase the domestic consumption of honey.
- E. To study such legislation as may be proposed or passed from time to time by various states and other governmental bodies and such rulings as may be made by various branches of state and national governments, and advise the members of the honey industry regarding the probable effects of such legislation upon said industry.

The membership according to the constitution is to be composed of:

"All who believe in and are willing to work for the accomplishment of the above objectives of the National Honey Association and to work in cooperation with other members of the industry in the solution of its problems shall be eligible for membership."

Membership fees in this association

range from a minimum of \$25 to a maximum of \$150 annually. The reason for the rather high dues is to accumulate sufficient funds so that the expenses of committees to and from Washington or to and from any other point may be paid by the Association.

The National Honey Association has financed the expenses of the committee of the National Beekeeping Council which was organized on January 25, 1942 at Chicago. The Washington committee elected at that time was E. F. Phillips, chairman, with Alan I. Root, Walter F. Straub, and James I. Hambleton assisting. This association together with the Bee Industries Association, composed entirely of manufacturers, have done some excellent work in Washington, D. C., contacting both the WPB and the OPA in matters concerning and directly affecting the honey industry.

At the present time the association is financing the expenses of the present committee of the Beekeeping War Council, pending the full organization of the National Federation of State Beekeepers' Associations. This will give the latter organization time to raise the funds necessary to carry on its program.

At the present time the officers of the National Honey Association are L. C. Dadant, president; T. W. Burleson, first vice-president; R. F. Remer, second vice-president; Alan Root, treasurer; Lewis W. Parks, executive secretary; John Paton, chairman of Board of Directors.

BEE INDUSTRIES ASSOCIATION OF AMERICA

This association was formed late in 1941 because of the dire need of the bee supply manufacturers to have someone represent them before the War Production Board at Washington, D. C. Previous to the organization of this association, valiant work had already been done by Baxter Woodman, of the A. G. Woodman Company, Grand Rapids, Michigan, and Alan I. Root, of the A. I. Root Company, Medina, Ohio, and Lewis W. Parks, of the G. B. Lewis Co., Watertown, Wisconsin.

These men gave much of their time and of their money to attend hearings before the War Production Board in regard to containers, tires, sugar,

and gasoline for the beekeeping industry.

Because of the restrictions on the manufacture of supplies an organization was believed necessary and the above was organized with the following objectives.

1. To keep in constant contact with the War Production Board and other governmental agencies in order to secure for bee supply manufacturers the best possible position in the country's war economy.
2. To cooperate with other associations and groups within the industry, to better exchange information and further the development of the industry.
3. To promote as far as practicable the standardization of equipment throughout the industry.

The membership to this association ranges from \$10 to \$150, payable annually and subject to additional assessments if necessary. Committees have repeatedly gone to Washington to make pleas in behalf of the honey industry and especially in the matter of the limitation of supplies for the beekeeper.

The officers of this association are Alan I. Root, chairman; R. H. Dadant, secretary; Baxter Woodman, treasurer.

Membership consists of any manufacturer making beekeepers' supplies.

— V —

WHAT IS A WAR JOB?

A war job does not merely mean a job in an aircraft plant, a shipyard, or in an ordnance or ammunition plant, according to Paul V. McNutt. People must be housed, clothed and fed also, and so those engaged in such essential civilian activities as agriculture, food processing, mining, textiles, transportation, communications, heating, power, and educational services are equally protected with respect to occupational classification and dependency status as those engaged in basic war industries.

Local Selective Service Boards are instructed not to reclassify registrants in accordance with the new policy on non-deferable occupations and activities until April 1 and not to induct such registrants who are presently deferred because of dependency until thirty days have elapsed following registration in an employment office for transfer to an essential activity.

(Office of War Information, War Manpower Commission Release February 10.)

ALFALFA NECTAR AND THE HONEYBEE*

GEO. H. VANSSELL,
Bureau of Entomology and Plant Quarantine,
U. S. Department of Agriculture,
Davis, California

ALFALFA, which is grown extensively in the West for hay, forage, and seed, is also the chief source of honey in numerous places. But even where it is grown under irrigation and is allowed to blossom, the honey crop, for various obscure reasons, is not assured. Likewise a crop of seed is rather unpredictable. To throw some light on this subject observations have been made on alfalfa nectar both under controlled conditions in the greenhouse and in the field.

Greenhouse studies.—The studies under greenhouse conditions were made during the winter and spring of 1939-1940 at Davis, California. Exposure of alfalfa plants to artificial light, from ordinary bulbs from 5 to 10 p. m. as a supplement to daylight brought some of them into blossom early in the winter. Plants not so treated did not flower until late April, that is, no earlier than the plants out of doors. The average number of blossoms on a raceme was 16, with a range of 11 to 25. The blossoms at the tip of a raceme opened about 4 days later than the first ones to open at the base. In the open greenhouse each blossom withered in about 7 days but under a humidifier life of blossoms was much extended. Natural tripping of these blossoms was not noted. In the greenhouse the nectar could be collected by hand, since insects did not deplete the supply. A tiny glass pipette, connected by a rubber tube to a low-pressure breath-operated vacuum pump, was used to draw nectar from individual blossoms into a composite sample.

Variation in the soil moisture resulted in a range of about 27 per cent in the concentration of sugar in nectar from flowers on uncut stems continuously exposed to a saturated atmosphere, and there was nearly the same range on the stems not under the humidifier. The data in table 1 indicate that soil moisture as well as air moisture influenced the sugar

Table 1.—Nectar sugar in alfalfa grown in the greenhouse under various conditions of soil and air moisture, May 1939.

| Condition of soil | Time since last watering of plants | Stem in open greenhouse | | Stems under humidifier at saturation | |
|-------------------|------------------------------------|-------------------------|---------------------|--------------------------------------|---------------------|
| | | Relative humidity | Sugar concentration | Relative humidity | Sugar concentration |
| | Days | % | % | % | % |
| Wet | 1 | 58 | 46.7 | | |
| Dry | 5 | 65 | 55.0 | 21.4 | (1) |
| Very dry | 7 | 56 | 67.1 | 38.3 | |
| Wet | 1 | 60 | 57.2 | 19.3 | |
| Fairly wet | 2 | 60 | 59.1 | 11.0 | |
| Wet | 1 | 56 | 48.3 | 14.3 | |
| Average | | | 55.6 | 20.9 | |
| Check (2) | | | 47.3 | | |

(1) Under humidifier for 20 hours. After this time these stems were continuously in the humidifier.

(2) A normally watered Common plant in the open greenhouse.

concentration in the nectar. Other flowers on stems cut and placed in water under a humidifier showed a drop from the original 50.3 per cent to 37, 30, 16, and 10 on four consecutive days. A single Common plant was used in this experiment.

According to reports from beekeepers in the Rogue River and Klamath Falls areas of Oregon, some varieties of alfalfa are more attractive to bees and more productive of honey than others. Two varieties upon which tests were made in the greenhouse, Turkestan and Common,

Table 2.—Sugar concentration of nectars from Common and Turkestan alfalfa in a greenhouse. (1)

| Temperature at time of sampling | Relative humidity at time of sampling | Average sugar concentration nectar (2) | |
|---------------------------------|---------------------------------------|--|-----------|
| | | Common | Turkestan |
| °F. | % | % | % |
| 83 - 84 | 48 | 50.6 | 62.6 |
| 80 | 57 | 53.5 | 63.7 |

(1) There is no assurance that soil moisture was the same. Each plant was watered at the same time every other day.

(2) All readings taken at 70°F.

showed a difference in sugar concentration of the nectar (table 2).

In four tests with Common and Turkestan, the quantity of nectar collected ranged from 0.83 to 2.4 microliters per blossom. On the basis of this data, the number of alfalfa blossoms required for a bee load of nectar is from 15 to 45. The larger blossoms, especially noticeable with the Turkestan plants under observation, contained the most nectar.

Under continuous warmth in the greenhouse, alfalfa never failed to secrete nectar, whereas out of doors it was well into May before the blossoms showed evidence of nectar. The early blossoms (April) had no visible supply. According to reports from numerous producers in the San Joaquin-Sacramento Valley of California, only the hot, dry periods afford much surplus alfalfa honey.

Field observations.—Field observations in California, Oregon, Idaho, Nevada, and Utah have shown various relationships between alfalfa blossoms and the activity of honeybees. In most sections bees were only rarely observed gathering pollen from alfalfa. In the Imperial Valley, however, there were numerous pollen collectors. The apparent scarcity of other pollen sources may be the explanation of this exceptional activity. In this instance the bees' mouth parts were extended upward into a blossom for removing the pollen without tripping. The bees were clearly reaching in the direction opposite to the one in which they ordinarily collect nectar from the base of the flower. Only a few alfalfa blossoms visited by bees for either pollen or nectar were observed to be tripped.

Nectar gathering honeybees were frequently most numerous in the drier spots within and at the margin of an alfalfa field. Blossoming was usually more advanced in such places. These observations are in accord with the data obtained in the greenhouse studies.

Other insects present in a field also influence nectar quantity and the activity of honeybee. Judging from field observations, when thrips are overly abundant in the blossoms, the

*A contribution from the Bureau of Entomology and Plant Quarantine, United States Department of Agriculture, in cooperation with the University of California.

Table 3.—Sugar concentration in alfalfa nectars collected in the field

| Locality | Nature of field | Date collected | Samples | Range | | Av. |
|------------------|--|----------------|---------|-------|---|-----|
| | | | | No. | % | |
| Oregon: | | | | | | |
| Corvallis | Bottom-land field | July 1937 | 37 | 33-48 | | 42 |
| Union | Unirrigated field | July 1938 | 25 | 42-58 | | 51 |
| Nevada and Idaho | various localities | 1932-1938 | Many | | | 40 |
| Utah: | | | | | | |
| Logan | Wet ditch bank | June 1940 | 11 | 34-46 | | 40 |
| Ogden | Hillside field, dry in spots | July 1940 | 21 | 58-65 | | 62 |
| California: | | | | | | |
| Davis | Irrigated orchard; bees scarce | July 1939 | 9 | 28-44 | | 34 |
| | | Sept. 1939 | 11 | 22-30 | | 24 |
| Ripon | Irrigated field | Sept. 1939 | 18 | 30-46 | | 41 |
| | Heavy silt, very dry | June 1939 | 42 | 52-66 | | 62 |
| Brawley | Light soil, lower, wet end of field | June 1939 | 80 | 25-41 | | 31 |
| | Light soil, upper, dry end of same field | June 1939 | 8 | 37-51 | | 48 |

(*) The values are approximate, since corrections were made for temperature variations.

quantity of nectar is diminished and visiting bees are reduced in numbers. A correlation between the presence of many alfalfa butterflies, a reduction in number of honeybees, and size of the honey crop is frequently reported. Abnormal growth of alfalfa plants and partial or almost complete failure to blossom successfully occur under heavy infestation of *Lygus* bugs. In this case a large proportion of the immature racemes cease developing or the flowers quickly turn yellow and drop off.

Samples of nectar from bees visiting alfalfa blossoms showed a decided variation in sugar concentration with location and other factors (table 3). In the Willamette Valley of Oregon, for example, an average value of 42 per cent was obtained, while at Union in eastern Oregon the average was 51 per cent. Likewise in northern California the averages ranged from 24 to 41 per cent, but on the heavy drier soils of Imperial Valley the average was 62 per cent. The highest values obtained were in commercial seed areas—perhaps only a coincidence.

Conclusion.—Observations in the field as well as under controlled conditions in the greenhouse indicate that alfalfa-nectar secretion and the sugar concentration values are affected by several factors, as follows: A longer light day stimulated earlier blossoming and thereby lengthened the seasonal nectar secretion period in alfalfa. The Turkestan variety yielded more and richer nectar than the Common. The larger blossoms provided the most nectar. Continuous warmth under greenhouse conditions resulted in maximum secretion. Lowering soil moisture and humidity each increased sugar concentration.

As has been shown in previous work with other honey-producing plants, the bees select the richer alfalfa nectars for their collections.

I WAS MISTAKEN

By E. L. Sechrist

IF there is one thing above others that I desire in my articles, it is that they be true to the facts, therefore I desire to give the gist of a letter that has just come to me from my good friend, John Haefeli, of Monte Vista, Colorado, which shows that, in my statements about the chances of bees getting foulbrood out of potato cellars, the danger was greater than I had supposed it to be.

What I wrote in the article on page 25 of the January issue of the ABJ was true of potato cellars as I knew them, but it appears that there are potato cellars and potato cellars. I never saw one the kind of which John writes.

He says:—"I notice with interest your article in the ABJ concerning potato cellars in Colorado and elsewhere and wish to inform you that you have been sorely misinformed about this.

"In the first place, the cellars here are not used for wintering bees but exclusively for potatoes. They are constructed with a double adobe wall, leaving an airspace between the walls varying from four to 20 inches. The poles on the roof are covered first by willows across them, then a foot of straw and earth over the willows.

"Now, as the adobe is soft, there are certain wasps, insects, mice and other rodents which burrow through the walls giving the bees access to the air space and a place in which to build a home.

"Poor bricklaying and hundreds of spaces between the poles used on the roof also give bees access to the interior of those walls. With such an inviting spot for a home, swarms by the hundreds get into these cellars and as there are two to eight of these cellars on every section of land in the valley, there are thousands of swarms in the walls which cannot be plugged because of so many places for entrances.

"The walls are 12 inches thick, or thicker, and I have yet to find a farmer who will let you tear these walls down to destroy the bees. It is true that there are a good many times when you can cyanide these bees and get the holes sufficiently plugged, but more often you only kill the bees and in a short while the brood hatches out and you will find bees coming out the entire length of a 150 foot wall.

"Many of these cellars are of concrete and they are harder still to combat, as the lumber, poles, and other material are continually shrinking, making new entrances for bees.

"These wild bees are our sources of American foulbrood and not infected material left lying about as seems to be your impression. I would venture to say that the majority of swarms in these walls are diseased and are a constant source of infection, as there are no moths or enemies of the bees to combat this menace. I have seen so-called experts come here and go broke because of it. One not knowing the actual conditions makes all sorts of suggestions, but they amount to little. A beekeeper who can remain in business and make money in this particular section can make a success of bees anywhere.

"This past season I have had a little more than one per cent of AFB but considering conditions, this is miraculous. It is true there are slovenly beekeepers in this territory but they just exist—they don't make money. I know of a few that have had as high as fifty per cent AFB, and have known definitely, that it came from outside sources.

"I will admit there are good many beekeepers who are careless and do perpetuate disease in their outfits, but the number is comparatively small. A diseased colony, in this country where there is nothing to destroy it, can be a source of infection for years. With such a constant source of infection I have yet to see the man who can keep bees here for a period of years and not contract a good deal of disease.

"The main point I wish to get across is that the source of infection is in the cellar wall itself and not in wintering bees in the cellars . . .

"I have read many of your articles in the ABJ and have enjoyed them, but it was annoying to see how badly you had been misinformed on this matter of potato cellars . . .

Very truly yours,
John Haefeli."

This situation which confronts the beekeepers of that area seems to me particularly serious at this time, and I am glad to have the statement given by Mr. Haefeli. Does anyone know the answer to the problem?

HONEY IN THE MAKING

By J. J. WILDER

IN the Smoky Mountains, honey was among the first discoveries and the first enjoyment by the white man in this great country. Hernando DeSoto and his party tasted the delights of honey in the summer of 1540 according to Kephart's History, thirty-seven years after the discovery of our country which is interesting from a historical standpoint.

In the history of Gatlinburg, Tennessee, we learn that the first visitors to the Smokies lived on honey and wild game which they found in abundance in the mountains. Later on when people began to settle, making it a permanent place to live, history further states, the inhabitants existed on honey and corn bread. Honey from the mountain wilderness, and the cornbread made from corn raised in small patches of land, cleared out in the forest on steep mountain sides.

Kephart, in his history of "Our Southern Highlanders" who lived in that immediate section, says, under the heading of "Raid into the Sugarland," "When we came to where the trail broadened into a wagon road, and a footbridge crossed the stream, we knew we were near Fenn's home. Presently it was to be seen, a prosperous place, with a fenced front yard in which stood over a hundred bee gums (hives made out of cuts from hollow logs)."

This shows to what extent beekeeping has been followed in the Great Smoky Mountains from the time of the first settler. Beekeeping has been an important industry during all the years in which early settlers inhabited the country. The mountains are still for the most part in their primitive state and anyone interested in beekeeping would naturally conclude that it is a great place for honey, with many floral sources.

It is well authenticated in history that almost every home in these great regions has also been the home of the honeybee; that the inhabitants have largely depended on honey for food. It is no wonder that the mountaineers are still largely honey consumers and here it is that we in Georgia sell our great crops of honey.

The Cherokee Indians, perhaps among the first inhabitants, are great honey eaters, spending much

of their time out in the forest hunting bee trees and some have log gums set up about their mountain cabins.

They have no history at their command about bees and honey, but like the Seminoles of Florida, they point us to their history handed down from mouth to mouth away back when.

And honey has always been recognized by them as a most choice food. No wonder that the big Cherokee Chief presented to DeSoto a big bowl of rich mountain honey, leaving such an impression on him that the writer of the expedition mentioned it.

It is a well-known thing that this vast region is now a part of the Great Smoky Mountain Park, with highways built through and over it; three or four million tourists have passed along its highways each summer. Many of you who read this have either visited it or have planned to do so.

Georgia.

— V —

EXPRESS SERVICE ON PACKAGE BEES

Twice we have asked the Railway Express Agency for a statement about express service for package bees during the spring of 1943 so assurance would be at hand to guarantee as far as possible effective delivery of package bees.

The answer to the first inquiry brought the response that as far as could now be determined, the express service would be available to the industry for 1943 shipments. The second inquiry brought this response from J. H. Butler, Traffic Executive, of the Railway Express Agency:

"It is impossible to forecast just what the transportation situation will be during the coming winter, as that depends, to a large degree, on the number of men and the amount of material which must be moved on passenger trains in connection with the war effort. So far we have been able to maintain reasonably good service and we are hopeful we can continue this through the winter, although we expect that the supply of express cars will not always be sufficient to meet the peak loads. To sum up the matter, we will do the best we can under the circumstances, and we cannot, of course, accept responsibility for delays due to conditions beyond our control."

In the Smokies. This picture is from Thompson's in Knoxville, through the courtesy of the Knoxville Chamber of Commerce, and shows a mass of sand myrtle among beautiful evergreens.



STUFFING FLOSS

Duane Wanamaker, of Chicago, tells about the use of the down from the common cattails for stuffing floss which he says is comparable in many ways to Kapok and other widely used stuffing materials. The new product is known as Typha, the correct botanical name of the plant.

Thousands of farmers, especially marginal farmers with swamp acreage, may be interested in growing cattails for this purpose.

Dr. C. F. Burgess conducted experiments over a ten year period to devise a method of processing the fluff from the cattail seed clumps into a



Two sources of stuffing floss, milkweed and cattail. In the upper picture the typical pods of milkweed are throwing their silky seeds to the wind. Below, the cattail heads soon do much the same. (Both pictures by Cale.)

light weight water resistant material suited for many commercial purposes such as stuffing toys, mattresses, pillows, sporting goods and other things. It also appears to be ideal for filling life jackets and rafts, as well as insulating airplanes and tanks.

Also the seed fluff of the milkweed and similar plants comes in for its share of substitution for the lack of Kapok which usually came from Java or China and is now very scarce with present stocks under priority. Dr. Boris Berkman has interested himself in the growing of milkweed for this purpose and we understand a factory has been set up in northern Michigan to process the fluff of milkweed after the seed has been set. This opens up a possible use of a good honey plant for chemurgic purposes.

— V —

CASTING WAX IN BLOCKS

I use 60 pound cans with the top cut out, putting in about a quart of hot water in each can, fill the cans with melted wax, set the cans in a wooden shipping case, push a bottom bar all the way down between the center of the outside of the can and the shipping case, allowing it to cool over night. Then remove the bottom bars and fill with cold water.

Then the can will pop loose from the wax, and the water will cause the wax to rise to the top. Two pairs of adjustable pliers are handy to pick up the cans of hot wax and also to remove the cans from the case.

When I only have one can of wax, I use a case with a partition or else slip an empty can in as a filler. I have used the same cans for several years and have never had any trouble with wax sticking.

F. H. Dennington,
Georgia.

— V —

MAN POWER FOR HONEY PRODUCTION

Man power for honey production and for milk production is a serious problem in South Dakota. Many farmers who milked ten to twenty cows along with general farming are discontinuing dairy cows for lack of help. Several of our large operators in honey are cutting down too because they do not have any help.

A. G. Pastian,
South Dakota.

BEEKEEPING IN HOT LOCATIONS

By E. L. SECHRIST

I have kept bees in the tropics of Africa, the West Indies, and in the South Seas; but I must say that I have seen bees suffer more from heat in several parts of the United States than anywhere in the tropics.

In the San Joaquin, Sacramento, and Imperial valleys in California, for instance, I have seen bees in their reaction to temperatures of from 100 to 120 degrees F.—that temperature in the shade, mind you, and there was no shade for the bees. What must have been the temperature in the sun where the beehives stood? Arizona and New Mexico, as well as other states, also have their hot spots.

How do bees protect themselves from heat when housed in our commercial hives which are a far cry from their natural homes in hollow trees? They fan and fan, desperately, creating currents of air all through the hive. But this is not enough. The bees were probably the first users of air-conditioning systems in that they carry water and place it in strategic positions inside the hive and then evaporate it in the endeavor to keep the temperature in the hive down to the normal of about 95 degrees. When the outside temperature is 125 in the shade, (and who knows what in the sun?) it must take a pretty good cooling system to keep the temperature below 100. A great deal of water is required and it should always be available near every apiary.

What, then, are the factors necessary to be considered when keeping bees in hot places? 1. **Water** and again, **Water**. 2. **Shade**. Not heavy shade, but light or partial shade. This will lessen the work of the bees, both in carrying water and in evaporating it. 3. **Apiary location**. Bees may suffer severely in one location while less than 100 yards away they may be able to take care of themselves. 4. **Orientation of hives**. Bees will suffer more if their hives face the heat of the sun. 5. **Hive stands**. Bees often suffer because their hives are set flat on the bare, hot, earth. 6. **Ventilation of hives**.

Water

Without a plentiful supply of water, bees cannot long endure excessive heat. They will carry water into the hive and evaporate it, cooling the air in the hive, just as long as it is pos-

sible for them to do so. The water supply may become exhausted or the air too hot for the bees to fly out to fetch more water. Then the bees become almost inactive; they withdraw from the hottest places in the hive, from the hot cover and the walls on which the sun shines. They may abandon the upper story, even if it contains the broodnest, the brood will be killed and thrown out of the hive later if the colony survives the excessive heat. They may go outside of the hive and cluster on its shady side; or they may spread themselves over the ground in the shade cast by the hive, exhausted, almost motionless, ready to die. This is the behavior of a colony without shade when the temperature reaches some high point, perhaps 110 to 120 degrees in the shade.

Then, if the beekeeper is not altogether careless, he comes with barrels of water and sprinkles it over the hive and over the bees clustered out and lying helpless on the ground. What a change takes place! The bees begin to stir themselves, to fan with their wings and again put their cooling system into operation as they go into the abandoned hive and try to save the colony. Water was the first necessity. Without it they could not have survived. With plenty of water they may pull through but it will be much easier if they have some shade.

Shade

It has come to my notice that, quite regularly, in excessively hot places, apiaries that are shaded, even by shade-boards or sacks, will store considerably more surplus honey than those which are exposed to the full rays of the sun. In Haiti and Santo Domingo, with 1600 hives of bees, we had only one apiary that had no shade. It produced much less honey than any of the others. This is not to be wondered at, because bees which become too hot not only lose much time from gathering nectar, but they must carry and evaporate more water. Besides this, they are almost sure to lose much unsealed and almost mature brood. When burr combs on top of the frames in the top story show that they have been almost melted, one can be sure that the bees have suffered, even if no more than being driven from their work in the upper part of the hive; but when, afterward, thousands of almost mature bees are dragged out of the cells and left in front of the hives, it is evident that the bee population has been seriously depleted.

If a beekeeper unexpectedly finds an apiary suffering from the heat and has no water supply at hand, the best thing he can do is to supply, at once, shade of some kind, preferably green branches of trees having thick, firm leaves, such as the oaks. Covering the hives with green leaves may save the bees and give him time to bring water to them. But a beekeeper should anticipate such emergencies.

An apiary in an area subject to excessive temperatures should be located in light shade if that is possible. Heavy shade is not desirable; but shade of bushes or tall trees, or of grape vines, so that the ground is



A ramada shades the hives in the desert.

sometimes shaded and sometimes exposed to the sun, is desirable.

But if the apiary can have no natural shade, as is usually the case in semi-arid regions, then what is to be done? Two plans are available. One is to erect a framework over each row, or two rows of hives, arranging a platform of wire netting on which are laid reeds, brush, or a slatted framework, so as to provide half shade. This plan is particularly good for a permanent location, as is a trellis of vines, but for migratory beekeeping, movable shade boards can be made of light material, about $\frac{3}{8}$ inch thick, nailed to two cleats. Such boards, if made about 2x4 feet, may be laid directly on the hives and will shade a pair set rather closely together. The ground between the two hives will also be shaded, which is a considerable advantage.

Some beekeepers object to shade boards because of their bulk, but 500 boards like this, made with $\frac{3}{8}$ "x $\frac{7}{8}$ " cleats can be carried at one load on a small pickup and will be well worth the trouble and expense. Nailing them lightly to the hive covers will keep them from being blown off.

Burlap gunny sacks can also be used for shade, one to a hive, placed under the flat cover so that the surplus tail of the sack hangs down over the rear of the hive shading it and making an air space between the hive and the sack.

Telescope covers with an inner cover are also useful as a protection from heat; but, like shade boards, these are some bother if hives are to be shifted from one location to another four or five times a year, as is often done by migratory beekeepers. However, in permanent locations, I would use telescope covers.

Apiary Location

This is of much importance everywhere, both in the cold of winter and in the heat of summer. It is often the case that, because of air flows, one location may be very hot, while on the opposite side of a pocket or valley not far away, no trouble from heat will be experienced. Sometimes the level land of a valley will be very hot while just a short distance up a slope the heat will not be excessive. It is most important, when locating an apiary, to make a careful study of the lay of the land, the direction of the winds, and the air currents caused by adjoining hills and valleys. If it is possible to choose a location sloping slightly toward the north, the bees will usually suffer less from heat than if the slope is toward the south where the sun's heat strikes more nearly at right angles to the slope. A green, grassy slope is cooler than bare ground, and it is of advantage to locate the apiary where the prevailing wind will blow over green fields as of alfalfa. A little rise in the ground, or the top of a levee, is sometimes less hot than the lower level ground.

Orientation of Hives

In the northern hemisphere, hives should face the north or east. The morning sun is usually beneficial in starting the bees out to work early, while the increasing heat of the noon-day and afternoon sun produces excessive heat. It will often be noticed that bees in hives facing the east hang out in clusters in the afternoon while bees facing the west are compelled to stay in the hives because of the heat of the sun shining on the front of the hives. In hot locations never face bees toward the south.

Bees in good locations and properly oriented, with a plentiful water sup-

ply, often survive periods of excessive heat even though they have no shade; but it pays to have shade also.

Hive Stands

Stands for two hives are better than the longer ones shown in the picture of one of my California apiaries which had a permanent location. In the West Indies most of our hive stands were cement blocks longer than the width of the hive and about eight inches high, two being used to a hive. These are good, but heavy to move. For migratory beekeepers, stands may not be practical, but they are a good thing. Besides keeping bees up off the hot ground and giving ventilation beneath the hive, the hive bottoms are protected from rot and from attacks of such insects as termites. One-story hives on stands are convenient to work and even three-story hives are not too high for convenience.

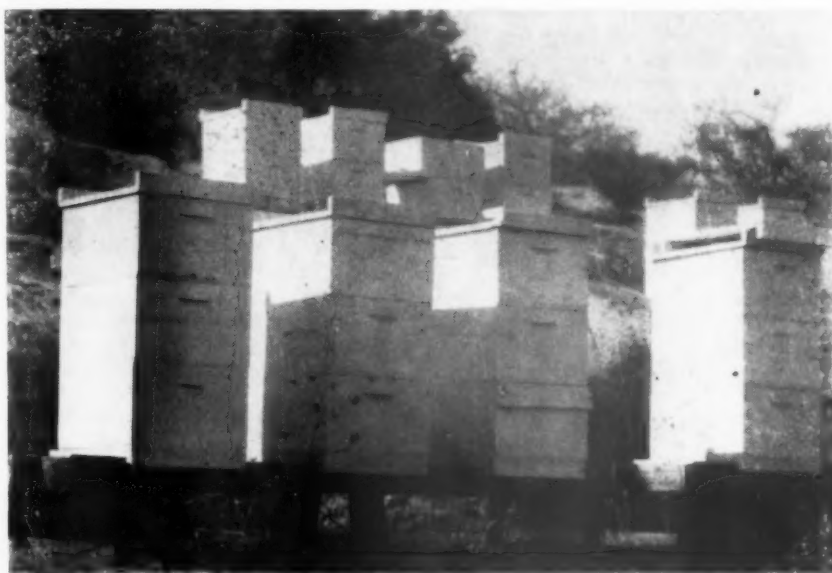
Ventilation

An enlarged entrance, as by raising the hive a half inch above the bottom board is often an advantage; and I have, at times, bored an auger hole as a supplementary entrance in the front of a hive or super where bees were clustering out badly. In a few minutes the bees will often be able to go into the hive and resume their work of air conditioning. Staggering the supers has been recommended but is of doubtful value and is not practical in extensive beekeeping operations.

Caution

Colonies in hot areas should not be disturbed much during the hottest part of the day, particularly if they are confined to their hives by heat, for they may then be just on the verge of suffering serious damage. If, at such a time, supers are moved about or combs changed from one place to another in the hives, the established system of ventilating and air conditioning is disturbed and it requires some time for the fanners to reorganize their forces. It often happens that a colony so disturbed will become so hot that combs will begin to melt down while colonies that have not been worked will carry on satisfactorily. In the Sacramento Valley I caused some of my combs to melt down just in that way before I knew the danger. This happened not more than a minute or two after I closed the hives.

Bees well located, with shade and water, and not disturbed during dangerous periods have survived the hottest weather, even coming safely through California's period of great heat several years ago, when there was tremendous loss, not only of honey and larvae, but of whole apiaries.



Apiary on raised stands to protect the colonies from ants.



THIS AND THAT FROM HERE AND THERE



THE DEPENDENCE OF AGRICULTURE ON THE BEEKEEPING INDUSTRY

A new publication has recently been issued by the Division of Bee Culture of the United States Department of Agriculture which fills a longfelt need. Thirty-nine pages are devoted to a review of the literature relating to the dependence of agriculture on the services of the honeybee.

A list of nineteen fruit crops and thirty-five seed crops which require the help of the bees in pollination are given. References are given to numerous publications showing in detail the value of the service.

In these days of shortages and priorities it is highly important to have definite information as to the relative importance of the numerous activities in which our population is engaged. Such information is necessary for the prosecution of the war effort. This bulletin is an important contribution to the beekeeping industry in placing authoritative information in the hands of those who must make important decisions in the distribution of men and materials. It is circular E-584.

— V —

NEW POLLINATION BULLETIN

A new bulletin, "Factors Affecting the Usefulness of the Honeybees in Pollination," has lately been issued as Circular No. 650 of the United States Department of Agriculture. It is by George H. Vansell.

Between species of plants there is a wide variation in the concentration of sugar in the nectar. Since the bees seek the source with the greatest sugar content, blossoms with a lighter concentration are neglected.

The variation has been found to range from 65 per cent in alfalfa to as low as or less than eight per cent in Bartlett pear.

Strong overwintered colonies were found to surpass the package bees in population, flight activity and the amount of pollen gathered.

This bulletin should be of special interest to every fruit grower or seed grower who is interested in pollination of special crops. Every wide awake beekeeper should read it as well.

— V —

HEINZ TAKES OVER SUN-MAID RAISINS

From "Advertising Age" for October 12, we get the announcement that the H. J. Heinz Company have taken over the distribution of Sun-Maid Raisins. Recently we announced the acquirement by Heinz of the distribution of Lake Shore honey which we hope will be one of the greatest advances in honey distribution in this country.

For twelve years Sun-Maid sales and distribution have been handled by 100 food brokers throughout the country. Because this type of distribution was threatened by the serious plight of most brokers due to the exigencies of war, the raisin cooperative turned to Heinz for relief. Heinz welcomed the opportunity to distribute Sun-Maid raisins as a means of replacing some of its own lines which have been eliminated or restricted.

The raisins will be delivered by the association to Heinz warehouses throughout the country and the company will take over the distribution, merchandising and sales of the civilian output of the cooperative, which now has a membership of about 3,000 growers, representing about one-third of the nation's total raisin crop.

— V —

HUCKLEBERRIES OR BLUEBERRIES?

Seeing the picture of the Dangleberries in the January issue brings to mind the huckleberry. What is the difference between the huckleberry and the blueberry? In Pennsylvania the huckleberry grows in the mountains, both low bush and high bush. In Maine there are two

varieties of blueberries. They look alike to me.

J. D. Trimmer,
New York.

Answer—There is considerable similarity between blueberries and huckleberries. The distinction is technical and is principally in the number of cells in the ovary of the flowers of the different species. The blueberry has a ten celled ovary, the huckleberry only four or five. Plants, however, have many things in common and there is much confusion regarding them.

— V —

CLOSURES FOR GLASS CONTAINERS

Limits within which closures for glass containers may be used to pack food are provided under the terms of Conservation Order M-104. The order affects the use of both metal and rubber in closures. Now closures are provided for glass to pack a large number of foods that may not be canned in tin. The purpose of the provision is to offset the restrictions on packing foods in tin cans. Included in this group are syrups and honey. Beekeepers are thus assured that for glass containers there will be sufficient closures to effect a tight and serviceable seal.

— V —

A NEW BEE BOOK

"Buzzing Around with the Honey Bees," by Irene Whelan Duax and Barbara Harnack Kirschbaum is the title of a new book just out. The book is cloth bound, octavo, and has sixty-five pages. It outlines the progress of honey cookery, the American Honey Institute, and devotes most of its space to the use of honey in the home preparation of honey for market and honey recipes. Such honey recipes as are used have been approved by various honey cookery clubs. The last few pages consist of questions and answers for information of the layman reader. The book sells for \$1.25.

OFF WITH HER HEAD

Remember, Alice in Wonderland? The white queen shouted "Off with her head," whenever there seemed any question about discipline in her realm. A clipping sent to us from F. P. Rowe of Ohio relates a story from London:

"An article in a London newspaper tells of an English woman who made the following entry in her diary: 'Kill Eng. queen and install Italian.' Somehow the police heard of this. She was arrested, and it took some time for questioners to find out that she was a beekeeper who had made a memorandum to change the queen in her hives."

— V —

HONEY IN THE STORE

In an Idaho grocery store, I have seen honey in pails with dust deep on the top, very poor honey packed by careless beekeepers. In the same store you will find no dust on the corn syrup pail. It is uniform and sells quickly.

B. Selwyn Wilson, Idaho.

— V —

\$100 FOR RESISTANT BREEDER

About Dr. Eckert's offer some time back in the Journal for \$100 for a resistant queen that would produce daughters suitable for breeding, I would like to make a few comments.

According to this article, California queen breeders are anxious to get this kind of stock and it is natural that they would be so interested. I am quite in accord with Dr. Eckert in the way he puts the matter. No queen breeder has any business in putting anything on the market which he cannot prove to be satisfactory. Breeders if they have such stock should be able to maintain it on a satisfactory basis and it should do the job thoroughly.

L. E. Orr, California.

— V —

WINTER COLONY

A colony covering six or seven combs with bees in October is as good a colony as you can winter.

Herbert J. Link, President,
Indiana Association.

— V —

OH! OH!

Sometimes you have a good friend who wants to help you out so he plants a little buckwheat.

Herbert J. Link, President,
Indiana Association.

AMOUNT OF WAX CAPPINGS

In some of your recent writings you state that the cappings to be obtained from 1000 pounds of extracted honey will make from seven to ten pounds of beeswax. It makes about seventeen pounds in my experience if you include the burrs from the top bars and the bottom bars.

R. Selwyn Wilson,
Idaho.

[Of course you are right because you cut down to the wood and don't try to make thin cappings. Many beekeepers, however, like to cut right up to the top of the cappings and so the amount of wax they get will be considerably less. In our own operation, we cut to the wood also and include the burr combs from end bars, top bars and bottom bars. Thus we will often secure an average of 20 pounds of wax per 1000 pounds of honey, particularly in seasons when the honey is thoroughly ripe and fully capped.—Ed.]

— V —

TAKE CARE OF YOUR EQUIPMENT

Since the manufacture of bee supplies will be curtailed on steel, tin and wood, let us make the best possible use of the supplies we have. Hives and parts should be repaired and put in order during winter, all equipment should be sterilized, hives and supers should be painted and now is the time to use up your old scrap lumber for hive bottoms and tops. Almost all shortages can be met if we properly plan and care for what we have.

(From L. R. Stewart, Indiana News Letter.)

— V —

FACIAL PACK

I ran across a recipe for a facial pack in "ABC & XYZ" which is superior to any commercial product. Take a tablespoon of flour and one of light colored mild honey, and beat it up with enough witch hazel and cologne to make a paste. Cover the face and leave on for twenty or thirty minutes. Remove with luke warm water and finish by rubbing with ice.

Then apply a small amount of honey cream, rub in gently and remove the surplus. Powder will remain on all day if the honey cream is used for a powder base. It also gives the face a glow obtained from no powder base on the market that I know of.

To make the honey cream, take a tablespoon of honey and one of

lanolin beaten together well. Add a little lemon juice and witch hazel and a tiny bit of cologne and a wee bit of olive oil, about a half teaspoonful. Best results are obtained if the honey, lanolin, and olive oil are mixed and beaten and the cologne and witch hazel added slowly.

Mrs. E. H. Allen,
Nevada.

— V —

KEEP HEALTHY

While beekeeping ranks better than some occupations in outdoor work, we should consider our health seriously because beekeeping is a stiff job. We are quite familiar with various diseases of the human body, particularly the so-called allergies. For instance, often propolis is scraped from equipment when the equipment is cool or cold. The propolis pops, cracks, and splits into fine particles. It is much better to get all the scraping done when the temperature is from 80 to 100 degrees, the higher the better. It will come off with greater ease and will not fly in all directions. Anyone who is allergic, asthmatically inclined or has weak lungs, scraping propolis when cold is not the logical thing to do. Some particles go into fine as dust pieces and since the work is inside, the pieces are inhaled and certainly do not do much good.

Alfred H. Johnson,
Illinois.

— V —

VASELINE FOR FOUNDATION

A little vaseline coated on the tops of the wooden blocks on a multiple foundation cutting board when preparing sections and supers for comb honey will allow the pieces of foundation to slide freely over the surface of the wood when they are being fastened into the section.

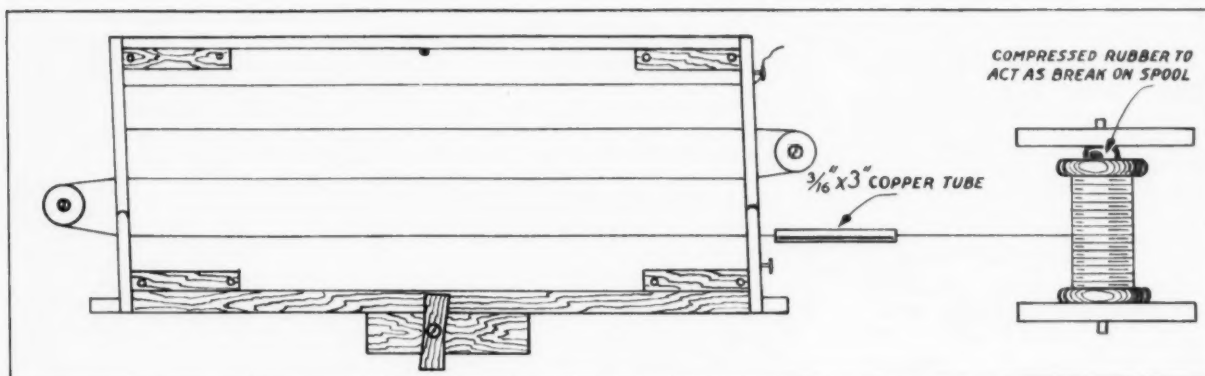
Carl E. Killion,
Illinois.

— V —

REMOVING BEES FROM COMB HONEY

In removing bees from the supers when comb honey supers are being taken from the hive, it will greatly facilitate the operation if all the bees possible are shaken out of each super before they are placed over the bee escape. This will reduce the time needed to clear the supers of bees and will result in a much better job.

Carl E. Killion,
Illinois.



WIRING FOUNDATION

Here is a sketch of the idea I have used for some time in wiring foundation. Most beekeepers dislike sore fingers resulting from twisting the taunt wire around the last nail before breaking the wire. To avoid

this, slip a 3/16 inch by 3 inch copper tube over the wire between the spool holder and the entry hole in the end of the frame. In the sketch here this copper tube is plainly shown. Use this spool as a wire tightener. Grasp the tube with the

same hand used for tightening the wire (right hand) and wrap the wire around the nail tightly to tighten the wire further and to hold the wire while the nail is being driven into place. Note the piece of rubber which acts as a brake on the spool. This is an improvement in the wiring device.

Albert E. Anderson,
Illinois.

HONEY PRODUCTION IN ILLINOIS



This map was omitted from the article "Honey Plants of Illinois," page 16, of the January issue, by Carl E. Killion. There actually was no room for it.

In that article he describes this map which divides the state into four equal sections. Most of sections 1, 2 and 3 would constitute the major part of the sweet clover area. Sweet clover, however, is to be found in all parts of the state, and more or less in spots,

but it is not as plentiful anywhere else as in these areas. Most of the white Dutch clover and alsike are to be found in the upper three sections and they are also the best for dandelion.

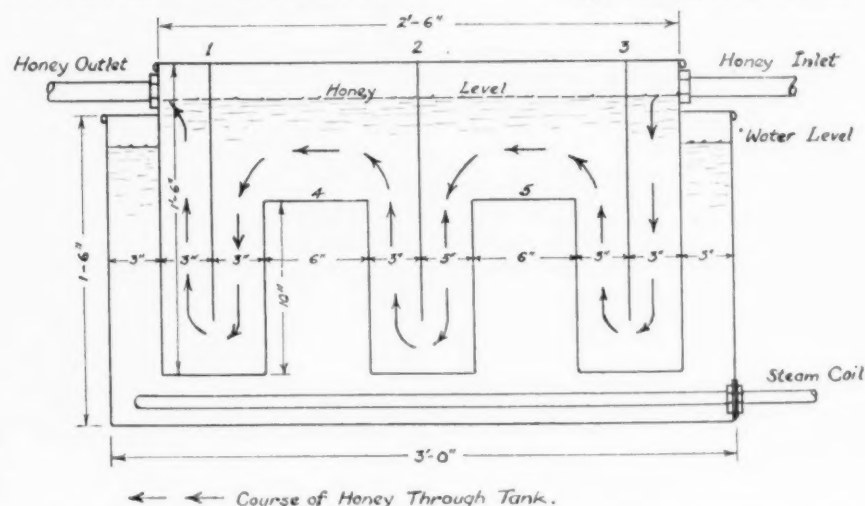
The two center sections, section 2 and 3, cover a major portion of the heartsease area, although heartsease is to be found in much of the lowlands in the fourth section.

In the two lower sections of the state are to be found the most aster, spanish needle, goldenrod, locust, basswood, bluevine and tulip poplar. In the lower half are also large areas of boneset.

Considering the distance from the north to the south end of the state, about 400 miles, the blooming dates will differ as much as three and sometimes four weeks and there is much variation from one season to another.

A HONEY HEATING UNIT

By Charles R. Hunt



The heated baffles are 10 inches deep and 6 inches wide and extend across the inner tank. They are set in slides for easy removal. There must be a drain plug at the bottom of each sump extending through the water jacket to drain the honey out of the melter. The water jacket must be

left open to prevent pressure. The water is heated by a steam jet for ease in the control of temperature.

The tanks are built of galvanized 20 gauge iron and the inner tank is bolted to the outer. The drains are plugged from the outside.

Illinois.



ANOTHER BABY HONEY

This time F. P. Rowe (grandpa) sends the picture of Russell Irwin Rowe, seven and one-half months old, son of Mr. and Mrs. Oliver Rowe, Quincy, Ohio. "We use honey in the baby's milk, and do we have a fine baby!"



MINNESOTA HONEY BULLETIN

Extension Bulletin 239, Agricultural Extension Service, University of Minnesota, St. Paul, by Ina B. Rowe and M. C. Tanquary, facts, recipes, obtainable from address given.

MARCH, 1943



DR. GEORGE W. CARVER

Science lost one of its most famous figures in the passing of Dr. George Washington Carver. He brought crop diversity to the cotton South and paved the way for a well distributed beekeeping as well as other agriculture. The world loses one of its most distinguished intellects with the passing of Dr. Carver.



EXAMINE BROOD WHEN YOU TAKE OFF HONEY

If you do this religiously and also examine the brood before the supers are put on, you will reduce disease to a low percentage even in the worst areas.



(Pictures from Pan American Union, Washington, D. C.) Buenos Aires, Capitol in background and Plaza de Mayo.



Apiary of Louis Jensen, Mandoza.



Cattle on the Pampas.

ARGENTINA

Argentina is next to Brazil in size among the republics of South America. The greater part of the surface consists of grassy plains. In the center and east is the pampas—vast, level, almost treeless expanses covered with tall grasses. North of the pampas are the plains of Entre Rios, between the Paraguay and Uruguay rivers and those of the Gran Chaco reaching to the western highlands and northward to Paraguay and Bolivia, diversified by minor mountain ranges.

The western part of Argentina merges into the Cordilleran system of the Andes, comprising two nearly parallel ranges, the western and loftier forming the boundary with Chile. The highest culminating peak of the entire system is Mount Aconcagua towering 23,290 feet in the sky.

The Republic lies wholly in the temperate zone. In the north, the climate is hot; on the pampas, temperate; in the south, cool. Pastoral and agricultural industries are the chief sources of wealth, with millions of acres devoted to wheat. Argentina is almost unrivaled as a grazing country, vast herds of cattle, sheep, horses, goats and pigs abounding. Other principal crops are corn, oats, flaxseed, sugar, cotton, tobacco and grapes.

About 20 per cent of the land is forest covered, the main timber being in the Gran Chaco region. The province of Santiago del Estero is almost wholly woodland.

Argentina has a population of only about ten million people, of which almost two million are inhabitants of Buenos Aires, which is the capital and the chief commercial center, and the largest South American city.

Beekeeping has made great strides in this land of rolling plains. From the beekeeping point of view, there are three different honey regions: the eastern or clover region where are found eucalyptus trees growing in great profusion; the western or irrigated alfalfa region where the bulk of the honey is obtained; and the northern or indigenous floral region, with its millions of acres of nectar bearing trees. It is here where the great orange plantations are and much honey comes from this source.

Beekeeping has been practiced from the time of the Spaniards, who were alive to the fact that much profit could be obtained, judging from the large quantities of honey gathered by the small wild bees of the woods where the mesquite abounds. These wild bees are still to be found in the woods, where they build their homes in the form of a sphere, a foot or so

(Please turn to page 120)

DEPARTMENTS



Wheat Fields at the National Experimental Farm, Pergamino, Province of Buenos Aires.



RECIPES



Honey Krisp Ice Cream

- 3 cups oven popped rice cereal
- 3 tablespoons butter
- 1/3 cup brown sugar
- 1/2 cup chopped, toasted nut meats
- 1 1/3 cups evaporated milk
- 2 eggs
- 1/3 cup honey
- 1/4 teaspoon almond flavoring or
- 1 teaspoon vanilla

Crush cereal. Melt butter in heavy frying pan, add cereal, sugar and nut meats. Mix well. Cook, stirring constantly until sugar melts and caramelizes slightly. Cool and crumble mixture.

Chill milk until very cold. Whip until stiff. Beat eggs with honey; add flavoring and fold into whipped milk. Pour into refrigerator trays and freeze partially. Mix 3/4 of crumb mixture with partially frozen ice cream. Pack in refrigerator trays or in paper cups. Sprinkle remaining crumb mixture on top. Freeze. Yield: 2 quarts.

— V —

Amber Onions

- 8 medium sized onions (white)
- 2 tablespoons butter
- 2 tablespoons lemon juice
- 1/4 teaspoon salt
- 1/8 teaspoon paprika
- 3 tablespoons honey

Peel and wash onions. Cover with

cold water. Slowly bring to boil, drain and rinse in hot water. Cover with water, boil gently, uncovered, until onions are tender. Add 1 teaspoon salt and drain. Add rest of ingredients and simmer 5 minutes. Stir frequently.

Associated Press—clipping sent in by Alfred H. Pering, Florida.)

— V —

Pumpkin Chiffon Pie

- 1 envelope Knox Gelatine
- 1/4 cup cold water
- 3 eggs
- 1 cup sugar, or 1/2 cup honey
- 1 1/4 cups canned or cooked fresh pumpkin
- 2/3 cup milk
- 1/2 teaspoonful each of ginger, nutmeg, cinnamon, salt

Beat egg yolks slightly, add half the cup of sugar (or honey) pumpkin milk and seasonings. Cook in double boiler until custard consistency, stirring constantly. Soften gelatine in cold water and dissolve in hot custard. Cool, and when mixture begins to thicken, fold in stiffly beaten egg whites. (If sugar has been used in custard mixture, add remaining half cup sugar to beaten egg whites.) Turn into baked pie shell or crumb crust and chill. May be garnished

with whipped cream just before serving.

—Knox Gelatine.

— V —

Toll House Cookies

Without sugar—made only with Nestle's Semi-Sweet Chocolate.

Cream:

- 1 cup shortening, add
- 3/4 cup strained honey
- 3/4 cup maple syrup and
- 2 eggs, beaten whole

Sifted together:

- 2 1/2 cups sifted flour
- 1 teaspoon salt
- 1 teaspoon soda and add to first mixture

Lastly add:

- 1 cup chopped nuts and
- 2 7-oz. packages Nestle's semi-sweet chocolate, in pieces

Flavor with:

- 1 teaspoon vanilla and drop by half teaspoons on a greased cookie sheet. Bake at: 350°F. Time: 15-20 minutes. Yield: 100.

—Nestles.

— V —

Spicy Oat Cookies

- 1/2 cup Spry
- 1 teaspoon salt
- 2 teaspoons cinnamon
- 1/2 cup sugar
- 1/2 cup honey
- 1 egg, unbeaten
- 1/2 teaspoon soda
- 1 1/2 cups sifted flour
- 1/4 cup milk
- 1 1/2 cups rolled oats
- 1/2 cup peanuts, chopped
- 1 cup raisins

Blend Spry, salt, and cinnamon. Add sugar and honey and blend. Add egg and beat. Sift soda with flour and add to creamed mixture. Add milk, oats, peanuts, and raisins. Drop from tablespoon on Spry coated baking sheets. Bake in moderate oven (350° F.) 12 to 15 minutes. Makes 5 dozen cookies.

Lever Bros. Co.

— V —

Honey Spice Cookies

- 1 1/3 cups all-purpose flour
- 1 teaspoon of baking powder
- 1/2 teaspoon salt
- 1/4 teaspoon soda
- 1/8 teaspoon cloves
- 1 teaspoon cinnamon
- 1/4 cup shortening
- 3/4 cup honey
- 1 egg
- 1 cup bran
- 1 cup seedless raisins

Sift flour: measure; sift again with baking powder, salt, soda, and spices. Cream shortening; add honey gradually, creaming until light and fluffy. Add egg; beat well. Add bran and raisins; gradually add flour mixture, blending thoroughly after each addition. Drop from teaspoon on lightly greased baking or cookie sheet 2 1/2 inches apart. Bake in moderate oven (250°F.) 20 minutes or until lightly browned. Make 24 three-inch cookies.

—The Family Circle.



AMERICAN HONEY INSTITUTE

1942 was an unprecedented year for the American Honey Institute.

Unprecedented—in its financial status.

Unprecedented—in the amount of printed advertising that was circulated. (Over \$8,000 worth of printing was done in 1942).

Unprecedented—in the volume of mail received.

Unprecedented—in the sponsoring of research on the vitamin content of honey.

Unprecedented—in the inauguration of a monthly news release to radio stations and newspapers.

— V —

The Institute shall redouble, not relax, its efforts to inform the public of the nutritive values of honey.

— V —

Among the honey cake recipes that received national publicity in 1942 were the following:

Aunt Jenny's Honey Chocolate Cake (Spry).

Honey Nut Cake (Swans Down and Calumet).

Honey Fruit Cake (None Such Mince Meat).

Honey Cake (Rumford's).

Honey Chocolate Cake (Arm & Hammer or "Cow" Brand, Baking Soda).

Honey Pound Cake (National Poultry and Egg Association).

— V —

Among the honey cookies that received national publicity in magazines and newspapers were the following:

Chocolate Frosted Honey Cookies (Pillsbury Flour Mills).

Honey Peanut Cookies (National Peanut Council).

Honey Coconut Cookies (Arm & Hammer, or "Cow" Brand, Soda).

Honey Chip Cookies (Arm & Hammer, or "Cow" brand, Soda).

Toll House Cookies (Nestles).
Chocolate Bits Honey Cookies (Chocolate Bits).

— V —

Requests for "Old Favorite Honey Recipes" are coming in because of the "Plain Dirt Farmer's Diary" in the February issue of Better Homes and Gardens.

— V —

Kellogg's news releases feature Honey Krisp Ice Cream.

— V —

Prem's advertisement in magazines suggests this delicious treat:

"Score two cans of Prem. Add cloves. Cover with honey. Bake at 400° for 15 minutes. Garnish with cranberries and holly leaves cut from green peppers. It's speedicious!"

— V —

Crisco's quarter-page advertisement has a recipe for Corned Beef Hash—Delicious with Honey Pecan Rolls.

— V —

A leaflet, "How to Eat Well on Less Meat," with meat-saving menus, has Chocolate Honey Cake listed as the dessert for one meal this month.

— V —

Nucoa's "The Wholesome Vegetable Margarine" has a Honey Loaf and a Cranberry Bow Knot Pie that calls for honey in its January Meal Planning Service.

— V —

The Atlanta, Ga., Journal features an attractive illustration of Honey Butter Roll-Ups. The recipe is given and the caption under the picture reads, "This honey-butter bread is a distinguished biscuit innovation. They not only add a delicious flavor note, but will furnish much good nutrition."

— V —

Oscar Mayer is promoting their Honey Cured Ham. An attractive little circular, entitled "Carve a Whole Ham Successfully" with cooking and serving tips for Oscar Mayer Honey Cured Hams by Little Oscar, is distributed with each ham.



For
About
75
Years

The Bee Smoker has been the most important tool in the outstanding development of American Beekeeping. It has made large quantity, commercial honey production possible. Little can be accomplished, without the Bee Smoker.

In this time of scarcity and restricted supply of materials, conserve such items as Smokers, Extractors and other items made of metal. Thus spread their use over time and place.

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Grand Rapids, Michigan



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Please write for tags and quotations.

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2-lbs. and queen \$2.75 ea. 3-lbs. and queen \$3.45 ea. 4-lbs. and queen \$4.15 ea. 15% down books order. Health certificate. Full weight, safe delivery guaranteed. Address

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"STANDARD RABBIT & PET JOURNAL"

Bring you the Monthly News of Rabbit, Cavy, Small Stock, Poultry, Birds and other Pets.

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Special Year 50c; 3 Years \$1. Sample, Dime.

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For honey's sake, join your nearest Association of Beekeepers.

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Bees and Queens

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Sample copy 20 cents

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AMERICAN RABBIT JOURNAL

Dept. S. Warrenton, Missouri

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FOR 1943

Orders large or small will receive our prompt attention
Write for prices

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If you are interested in Pigeons, you need the AMERICAN PIGEON JOURNAL, an informational instructive 52 page monthly magazine, Sample 15c; 12 months, \$1.50.

AMERICAN PIGEON JOURNAL

Dept. B Warrenton, Mo.

Italian Bees & Queens

Order early for spring delivery. No bees or queens shipped after May 15.

Al Winn

Rt. 1, Box 729-A. Petaluma, Calif.

American Bee Journal Classified
Ads Bring Satisfactory Results

ARGENTINA

(Continued from page 116)

in diameter. The outside protection is similar to the fibrous materials employed by the wasp and the entrance is situated at the bottom, the whole hanging to the branch of a tree a few feet above the ground.

Snow is seldom seen, therefore the winter problem which tries the beekeeper in the States, is fortunately unknown. There are no rainy seasons although more rain falls in summer than during the rest of the year. The yearly precipitation is heaviest in the eastern region, where 50 inches is usual; while half that is common in the center, and in the western irrigated region, they are lucky if it averages 6 inches.

The cost of supplies is greater than in the United States and honey prices should be correspondingly high, but it is not always so. The producer is lucky who gets 10 cents per pound

for his honey in bulk, and when offered in containers of one to two pounds, the price is about 7 cents additional.

No census has been taken of the bees and it is impossible to get figures on the average yield. Drought and locusts are among the principal causes of failure. In the western region, where alfalfa and fruit are cultivated in the alluvial soil deposited by the torrents from the mighty Andes, yields of 300 pounds are frequent. There are no extensive apiaries such as may be found in many parts of the states, and establishment of over 500 colonies are few.

The present Argentinian beekeeper's magazine, "Revista De Apicultura" is financed by beekeepers from all over the country who aim to promote the development of their industry and to place within the reach of everyone the modern teachings available. A national association has the Revista as its official organ.

— V —



Meetings & Events

Michigan Beekeepers Short Course

The four day beekeepers short course, March 9 to 13, will give particular attention to management and production problems. Beginners are welcome. Those having had previous experience with bees may be able to assimilate more from the lectures and demonstration work. Experienced beekeepers will assist with the lecturing. For further information write to the Director of Short Courses, Michigan State College. (Michigan Beekeeping Letter.)

— V —

New Rochelle (N. Y.) March 7

The next regular monthly meeting of the New Rochelle Beekeepers' Association will be held at the Hilltop Apiary, 325 Webster Avenue, New Rochelle, home of Mr. and Mrs. S. Barnes and John F. Keller, newly elected president, on Sunday, March 7, at 2:30 P. M. A general discussion on package bees and their care, a most appropriate subject at this time of year, will be the topic of interest at this meeting.

S. Barnes, Publicity.

— V —

No Meeting in Missouri

In the February 13 circular letter,

the Missouri beekeepers are informed that the annual meeting for 1943 is cancelled. It seemed best to do this in these times of emergencies, when all trips and meetings must be studied carefully not to waste vital material. Beekeeping, however, is an essential war time occupation and it is believed that we should go ahead with association work. We must continue to secure maximum production of beeswax and honey, assure an ample supply of bees for crop pollination and keep abreast of the times to render service.

Carl Kalthoff.

— V —

Bronx County (N. Y. Association) March 14

The Bronx County Beekeepers' Association will hold their regular monthly meeting at the home of William Lienhard, 2341 Hermany Avenue, Bronx, on Sunday, March 14, at 2:30 P. M. The afternoon will be devoted to the discussion of bee subjects in general, and more particularly on spring feeding. A cordial welcome is extended to all interested in bee culture.

Harry Newman, Sec'y.

— V —

New Officers Sheboygan County (Wisconsin)

L. L. Pierron, Plymouth, was

AMERICAN BEE JOURNAL

elected president of the Sheboygan Honey Producers' Association at the annual meeting November 14 at Plymouth. Other officers are Paul Thomas, Elkhart Lake, vice-president; and Gerald Wentz, Sheboygan Falls, secretary-treasurer. Directors named are Martin Koebel, Plymouth; Oscar Kazmeier, Kiel; and William Burgdorf, Kiel. The meeting voted to invite the state association to convene in Plymouth for their next annual meeting in October.

H. C. Brunner,
Wisconsin.

— V —

Louisiana Extension Apiarist Passes Away

Have just learned of the death of E. C. Davis, Extension Apiarist, who passed away on January 26 at Baton Rouge, Louisiana.

Mr. Davis had been the Extension Apiarist in Louisiana for a great many years. In fact, was probably one of the first ones in service in the United States. In cooperation with George W. Bohne he organized the first 4-H Bee Club which was started in Allen Parish. Mr. Davis had retired in 1940 on account of ill health. His services in establishing modern beekeeping in Louisiana have been inestimable.

— V —

Utah Honey Men Pick Officers

Serious scarcity of beeswax is threatening the United States, according to William L. Moran, Utah inspector, in his talk before the state association in the Newhouse Hotel, January 28 and 29. Beeswax is necessary for over one hundred different war uses. Don E. Kenney, state livestock commissioner, pointed out ways in which the board of agriculture may help the beekeepers. The board is now in charge of the inspection, considers marketing problems, and is interested in increasing the honey

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PRICES ON PACKAGE BEES WITH QUEENS TO MAY 21ST, 1943

| | Queens | 2-Lb. Bees | 3-Lb. Bees | 4-Lb. Bees | 5-Lb. Bees |
|------------|--------------|------------|------------|------------|------------|
| 1 to 24 | ----- \$.90 | \$2.95 | \$3.80 | \$4.60 | \$5.35 |
| 25 to 99 | ----- .85 | 2.80 | 3.60 | 4.35 | 5.05 |
| 100 to 499 | ----- .80 | 2.65 | 3.40 | 4.10 | 4.75 |
| 500 up | ----- .75 | 2.50 | 3.20 | 3.85 | 4.65 |

For tested queens double the price of untested.

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Combless packages and queens.
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3-Banded Italian Bees & Queens

| | 1-24 | 25-49 | 50-499 |
|------------------|--------|--------|--------|
| 2-Lb. with queen | \$2.85 | \$2.60 | \$2.50 |
| 3-Lb. with queen | 3.75 | 3.60 | 3.50 |
| Queens | .85 | .80 | .75 |

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The BEST PACKAGE to be had. About 75% baby bees, 25% teachers.

A good Italian queen raised right.

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CANADIAN BEE JOURNAL

OSHAWA,

ONTARIO

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Carniolans build up early in the spring and are the most excellent workers. Carniolans lead in honey production, in economic use of winter stores and in gentleness. Make it Carniolans in 1943. Price:

2-lb. bees with queen \$3.00; 3-lb. bees with queen \$4.00. F.O.B. Untested queens \$1.00 postpaid

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Who is Pettit? Why, Morley Pettit, first in America to bear the title of State or Provincial Apiarist. Founder of the Apiculture Department at the Ontario Agricultural College. Practical honey producer from childhood. Successful shipper of bees in Georgia for eighteen years. Old enough to know how. Young enough to see that you get good service. Ask our many satisfied customers.

| Quantity | Twos Each | Threes Each | Fours Each | Fives Each | Extra Queens Each |
|----------|--------------|----------------|---------------|---------------|-------------------------|
| 1-23 | \$2.95 | \$3.85 | \$4.75 | \$5.60 | \$.95 |
| 24-99 | 2.80 | 3.65 | 4.50 | 5.30 | .90 |
| 100-499 | 2.65 | 3.45 | 4.25 | 5.00 | .85 |
| 500 up | 2.50 | 3.25 | 4.00 | 4.70 | .80 |

Book orders and reserve dates soon. Send Cash in U. S. funds ten days before shipping date.

We offer prompt service

Best Young Queens New Cages Hard Workers
No Drones Gentle Italians Safe Arrival

Our best friends are satisfied customers

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Dixieland's Leather Colored Italians

A strain of bees that has been selected and tested, over a number of years for all of the best qualities that is necessary for producing honey. We have received proof, and you will also receive proof that they have all of these good qualities of producing honey when you try them. Prices to and including May 20th.

| | Queens | 2-lb. Pkg. | 3-lb. Pkg. | 4-lb. Pkg. | 5-lb. Pkg. |
|---------|--------|------------|------------|------------|------------|
| 1-24 | \$.90 | \$2.95 | \$3.80 | \$4.60 | \$5.35 |
| 25-99 | .85 | 2.80 | 3.60 | 4.35 | 5.05 |
| 100-499 | .80 | 2.65 | 3.40 | 4.10 | 4.75 |
| 500-up | .75 | 2.50 | 3.20 | 3.85 | 4.45 |

Due to War time conditions, orders must be placed early as possible to receive prompt delivery. You must be satisfied.

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ITALIAN PACKAGE BEES AND QUEENS

In order to get your bees and queens on time, place your orders early

| | Queens | 2-Lb. | 3-Lb. | 4-Lb. |
|---------|--------|--------|--------|--------|
| 1-24 | \$.90 | \$2.95 | \$3.80 | \$4.60 |
| 25-99 | .85 | 2.80 | 3.60 | 4.35 |
| 100-499 | .80 | 2.65 | 3.40 | 4.10 |
| 500-up | .75 | 2.50 | 3.20 | |

Queenless package deduct price of queen. Prompt service—Satisfaction guaranteed

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|-----------------------------------|-------------|
| Untested Italian Queens | \$.90 each |
| Untested Caucasian Queens | .95 each |
| 2-Lb. Package with Untested Queen | 2.60 each |
| 3-lb. Package with Untested Queen | 3.50 each |

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Write for special quantity discounts

plants and in maintaining clovers chiefly in highway areas.

Concluding the two day conference was an election of officers. Wilford Belliston, of Nephi, was re-elected president; Ray Miller, vice-president; and William L. Moran, secretary. Joseph Yack, of Neola; Otto Stewart, of Spanish Fork; and Marion Cox, of Logan, were elected to the board of directors.

Utah beekeepers were urged to deliver their bee power as never before. Last year, with only 51,000 colonies of bees, the honey production was 2,115,000 pounds, a state high record. Utah hives last year also delivered 44,000 pounds of wax. The goal this year has been set at 52,000 pounds. The annual crop is reported at 179,049,000 pounds, about a pound per person in the country, but the Utah bees produced four pounds per capita.

Glen Perrins,
Utah.

— V —

Fraser Valley to Protest Price

The Fraser Valley division of the British Columbia Honey Producers' Association will protest to Ottawa against the present ceiling price on honey, urging that the ceiling of 15 1/2 cents be increased. Many producers have found it more to their advantage to use their honey at home than to sell it. The provincial crop is about a third less than normal and the cost of supplies and labor have shown large increases.

J. L. Sangster, New Westminster was elected president; A. N. Paull, Kennedy, vice-president; Mrs. Ada Muir, secretary-treasurer, J. P. Faircloth, Haney, was appointed to the directorate.

F. H. Fullerton,
British Columbia.

— V —

S. D. Williams, Life Member

S. D. Williams, of Portland, Oregon, was given a life membership in the Oregon State Beekeepers' Association at the meeting held in Portland, December 4 and 5. Mr. Williams has served as secretary and has been active in beekeeping for many years in the state. He was one of the founders of William Bros. Mfg. Co., Portland, Oregon.

The following officers were re-elected for another year; H. J. Moulton, Portland, president; Callie M. Burt, Newberg, vice-president; and John D. Burt, Newburg, secretary-treasurer.

John D. Burt,
Secretary.

Stock Bred For Resistance

A WORD TO THE WISE—Better use this stock when it can be obtained to carry forward your Victory Campaign for disease control.

The demand for these queens can be supplied if it can be spread throughout the season. Why not order for weekly deliveries to meet your needs of the season? Why not use the nucleus method of queen reservoir and introduction to meet colony demands?

For prices see page 79, February issue of the American Bee Journal or write to

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STATE HOUSE

DES MOINES, IOWA

Place Your Order Now For Definite Shipping Date

Early orders are being placed more rapidly this year than at any time in the past. Delivery at the proper time is of such great importance that to take a chance with late ordering may decrease your honey crop. Your order placed in advance will insure you receiving your bees when you want them. Our efficient system of booking prevents any possibility of late shipment.

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| 1- 24 | \$.90 | \$2.95 | \$3.85 | \$4.60 |
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GUARANTEED LIVE DELIVERY

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Due to the uncertainty of conditions we are not issuing our regular catalog for 1943.

Please keep your 1942 catalog as prices are practically unchanged. If you have not a 1942 catalog, write us,

for quotations on such items as you may need. We will do our best to give you prompt service on such items as are still available.

A. H. RUSCH & SON CO.

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Thanks a Million!

We are now booked with all the orders we can handle.

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A WORD TO THE WISE, BOOK EARLY. NO C. O. D.

Combless. With Queen

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|------------------|--------|--------|--------|
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| 25 to 99 | .85 | 2.80 | 3.60 | 4.35 | 5.05 |
| 100 to 499 | .80 | 2.65 | 3.40 | 4.10 | 4.75 |
| 500-up | .75 | 2.50 | 3.20 | 3.85 | 4.45 |

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| 25-99 | .85 | 2.80 | 3.60 |
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QUALITY BRED THREE BANDED ITALIAN BEES AND QUEENS

Customers: With my lifetime experience in rearing queens and shipping package bees you
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Prices on Queens and Packages Bees with Queens.

| Lots of | Queens | 2-lb. Pkg. | 3-lb. Pkg. |
|-----------|--------|------------|------------|
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| 25 to 49 | .80 | 2.60 | 3.60 |
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FARRIS HOMAN, Shannon, Mississippi

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CROP AND MARKET REPORT

Compiled by M. G. DADANT

We have asked reporters to answer the following questions:

1. How has the winter been so far?
2. Anticipate much loss of bees?
3. Conditions, moisture, etc.?
4. Honey Plant Prospects?

As reported last month the amount of honey left in the hands of the producers is practically negligible. Most producers have been sold out for quite a long while and orders for honey cannot be filled excepting by some of the larger packers who were able to buy up a considerable quantity of honey earlier in the year.

In the New England states the weather is reported all the way from fair to extremely severe and losses generally seem to be from average to as much as an expected twenty-five per cent. Honey plant conditions are all the way from good to excellent. There seems to be plenty of clover and barring an unusual season, crop prospects are excellent.

In the southeastern states where winters do not mean so much, conditions through winter have been about normal. The loss of bees has, of course, been very limited. Moisture conditions are from dry to extra good although one or two reports show that in the extreme Southeast there has been some dry weather which may interfere with a normal crop. Honey plant conditions are generally good and taking the Southeast situation as a whole, the prospects for a crop are better than normal.

In the Southern States the winter has been milder than usual with only a minimum of freezing weather. Winter losses are unusually light and honey plant conditions and moisture seem to be ample in practically all territories, most reporters showing 100% of normal or even better.

The reports from Texas are not quite so encouraging as there is more drought, and unless spring rains come soon, the crop is likely to be short. However, there is a considerable range in the reports due to the large area covered by that state. Unless moisture should come soon the crop in Texas apparently will be much below normal.

In the eastern half of the north central states which includes Ohio, Indiana and Michigan the prospects of losses are not abnormal. The winter has been rather cold but bees appear to be wintering fairly well generally. In some localities, especially in Michigan, there seems to be an anticipated loss of some 20 to 30% due to starvation, which of course, is the result of a short crop in 1942. Honey plant conditions and moisture conditions are excellent and with a normal season a good crop apparently should be harvested in those states.

In the west central states, Illinois, Missouri, Iowa and Wisconsin, the conditions are a little more spotted than usual. Illinois has had an exceptionally cold winter with rapid changes in temperature and this naturally will mean heavier losses than ordinary. In this territory, too, the shortage of stores due to the short crop in 1942 will mean considerable spring loss due to lack of food unless bees are properly supplied. Honey plant conditions, however, are even more than 100% of normal due to the constant rains in 1942 which have brought the clovers along in excellent shape. With any kind of nectar-secreting weather in 1943, the crop prospects generally look good in this section.

In Minnesota, Wisconsin, and the Dakotas there has been very consistently cold weather. In these areas farther north the weather has been cold right straight

through with practically no opportunity for flights. However, where bees had plenty of good stores, most reporters feel that their losses will not be serious. The snows generally have been heavy and this has been a help in protecting colonies from cold weather. Honey plants apparently are in excellent condition throughout this territory and with a good covering of snow and plenty of moisture, they should come out in excellent condition this spring. The tone in that territory seems to be generally optimistic.

The Kansas, Nebraska, Oklahoma territory has had frequent cold spells as far south as Oklahoma but generally speaking, bees are in excellent condition with prospects of no more losses than normal. In this territory, especially Kansas and Nebraska, the crop was very good in 1942 so that bees generally had sufficient stores. Moisture conditions and honey plant prospects are excellent, with reporters apparently very much encouraged for the coming season.

In the Rocky Mountain territory from Colorado up to Wyoming, Utah, and into Idaho and Montana the weather has been unusually mild and reporters seem to think that the losses will be very light. Excepting for one or two locations, reporters indicate that there has been plenty of moisture and that honey plant prospects are good. One large beekeeper from Idaho who called at this office indicated that their main trouble in the Rocky Mountain territory now was that alfalfa fields were cut before they had an opportunity to bloom and this reduced the crop considerably. Also some of the reporters indicate that due to the drive for production of grains, alfalfa and sweet clover fields are being plowed under and this will undoubtedly hurt honey production. Even as far north as Montana where cold weather might be expected to do damage, the reports are generally optimistic.

The Pacific coast states give varying reports. The states of Oregon and Washington, where such a short crop was harvested last year, indicate that much winter loss is expected. However, there is an encouraging tone from these two states which indicates that there will be plenty of moisture and that honey plants should be in good condition for 1943.

From California comes the report that there will probably be more loss due to cold weather which continued for a longer period than usual. The losses will be due to starvation unless bees are fed. In many locations, however, the conditions are normal with comparatively little loss, running from 3% to 10%. Moisture conditions seem to be very good as given by practically every reporter and honey plants apparently are at least up to normal and in some cases a little better than the average. Beekeepers apparently are encouraged.

Taking the country as a whole our forecast would be that losses would be a little below normal. Much, of course, depend on what the late winter and early spring weeks bring. Frequently losses are heaviest in the north central zone during the months of March and April than during the coldest winter months.

Not for a long time have we had reports so favorable as to conditions of honey plants and the amount of moisture that has fallen during the late fall months or that will be produced from melting snow. In our own state of Illinois white Dutch clover is perhaps in better condition than it has been for many years. With a normal honey producing season it looks as though honey production should be well above normal and certainly far better than in 1942. In these clover districts it looks at the present time as if it might be "one of those years."

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THE MARKET PLACE

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THREE BANDED ITALIAN bees and queens. 2 lb. package \$3.00 each; 3-lb. package \$4.00. Select untested queens, 1 to 25, 90c; 25 to 50, 80c; and 50 up, 70c each. A health certificate with every order. Alamance Bee Company, Geo. Elmo Curtis, Mgr., Graham, North Carolina.

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FOR SALE—Two hundred eight frame dovetailed factory made hive bodies and other equipment. No disease. Bargain if sold soon. See these or write. Chas. F. Frey, Urbana, Iowa.

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WANTED—Experienced beeman and helper, draft exempt. State wages expected and qualifications and habits first letter. H. A. Sundean, 122 Euclid Avenue, Crookston, Minn.

WANTED—Share basis deal, Iowa preferably. Experienced, 3-A. Roscoe G. Cook, Blair, Nebraska.

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WANTED—Queen breeder and two helpers for package shipping during the season of 1943. N. Forehand, Florala, Alabama.

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Full weight, prompt shipment, young bees. State health certificate with each shipment. Live arrival guaranteed, replacement or refund made promptly upon receipt of bad order, from express agent.

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| Untested queens | | .75 |
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| 1- 24 | | \$.90 | \$2.95 | \$3.80 | \$4.60 | \$5.35 |
| 25- 99 | | .85 | 2.80 | 3.60 | 4.35 | 5.05 |
| 100- 999 | | .80 | 2.65 | 3.40 | 4.10 | 4.75 |

If queenless packages are desired, deduct price of queen. Queens—Three-Banded Italians or daughters of stock bred for resistance. No charge for clipping. Tested Queens, \$1.50 each. Parcel Post packages add 20 cents each for special handling plus regular postage.

Citronelle Bee Co. :: Citronelle, Ala.

6 BASSWOOD seedlings—18 inch or 10 12-inch, or 6 Marrow HONEYSUCKLE shrubs (hedging), or 20 CARAGANA hedging—18-inch, or 3 transplanted BASSWOOD 3 foot, or Two PUSSY WILLOW (Earliest spring pollen) 4 foot-nectar producers. Each group postpaid for \$1.00 bill. Bank checks require 10c added. Local Lewis-Dadant dealer. Free circular covering our combined "Controllable Feeder and Swarm Control Board." No cold metal to chill the bees. A sample 10 frame size mailed for \$1.60. NICOLLET COUNTY NURSERY, St. Peter, Minnesota.

We have a British correspondent in the heavy heather honey section who wants a used Lewis-Markle extractor with 12 inch pockets in either four frame or eight frame type. Any subscriber having such for sale please get in touch with the American Bee Journal and give condition of the extractor and expected price.

RANCH MAGAZINE—Do you find it difficult to secure information about sheep and sheep ranching methods? The SHEEP AND GOAT RAISER reaches more sheepmen with more information on range sheep than any magazine published. Subscription \$1.50. Hotel Cactus, San Angelo, Texas.

THE BEEKEEPERS MAGAZINE, published monthly, brings you the news from the field of beekeeping. Subscription: \$1 a year. Single copy of current issue, 10c. The Beekeepers Magazine, 3110 Piper Road, Lansing, Michigan.

DRAFT DEFERMENT FOR BEEKEEPERS

In our January issue, the Selective Service System gave beekeepers a deferment basis in which twenty-five colonies of bees are equal to one dairy cow. Since twelve cows are required for the deferment of one full time laborer, three hundred colonies of bees becomes the unit for a commercial beekeeper.

Selective service officials will now issue a new directive to local draft boards which will make a 16-unit formula simply an objective and the boards will use their own judgment for variation in individual cases.

The 16-unit formula sets a standard for determining whether a farm worker should be deferred and is based on work in the production of live stock, poultry, grain, honey and wax and other products deemed essential.



Fast Service and Results

At Picayune, bees and queens are raised under natural conditions. Prolific, gentle, honey producing stock, managed under a moderate honeyflow, starting about March first and continuing through the breeding season.


Our breeding stock has been chosen for prolificness, high production, gentleness, and appearance. Four express and mail trains daily; 4 per cent extra queens with each package shipment.

| Quantity | 2-Lb. | 3-Lb. | 4-Lb. | 5-Lb. | Queens |
|----------|--------|--------|--------|--------|--------|
| 1-24 | \$2.95 | \$3.85 | \$4.75 | \$5.60 | \$.95 |
| 24 up | 2.80 | 3.65 | 4.50 | 5.30 | .90 |

15% booking deposit required

Daniels Apiaries : Picayune, Miss.

WE WILL BUY YOUR "CHUNK HONEY" IN THE SUPERS. . . . WRITE US TODAY
THE FRED. W. MUTH CO. Pearl and Walnut Cincinnati, Ohio



WAX

When You Want
QUALITY at LOW COST
Look For This Sign

We will buy your wax or work
it into comb foundation or accept
it in trade. Write for circular and
prices.

The Walter T. Kelley Co.
Paducah, Ky. Just Across the River from Illinois

Trade Mkt. Reg.
U. S. Pat. Off.

JENSEN'S Package Bees and Queens

Again we are on the march with bees, and by the time you read this, we will be well on our way producing those good package bees and queens. Colonies examined during first week of February were found to have up to five good frames of brood, with young bees hatching in great numbers a month earlier than usual.

With arrangements made for the output of several hundred additional colonies of Italian bees, and with ample supplies of every kind on hand we anticipate no handicaps. Also we are increasing our queen capacity.

| | Queens | 2-Lb. pkgs. with queens | 3-Lb. pkgs. with queens |
|---------|--------|----------------------------|----------------------------|
| 1- 24 | \$.90 | \$2.95 | \$3.80 |
| 25- 99 | .85 | 2.80 | 3.60 |
| 100-500 | .80 | 2.65 | 3.40 |

No orders for larger lots can be accepted for the present.

Jensen's Apiaries : Macon, Miss.

The Home of "Magnolia State" Strain Italians

Package Bees with Queen

THREE BANDED ITALIAN

| | |
|-----------------------|--------|
| 2-lb. bees with queen | \$2.75 |
| 3-lb. bees with queen | 3.45 |
| 4-lb. bees with queen | 4.15 |
| 5-lb. bees with queen | 4.75 |

Satisfaction guaranteed. Address

THE CLOVER BEE FARM
HESSMER, LOUISIANA

Package Bees in April

3 Pound packages of young bees produced on natural honey flow, not wintered over nor sugar raised.

Florida Honey Producers Co-Operative

AUBURNDALE, FLORIDA

HONEY WANTED

Carloads and less than carloads.
Mail sample and best prices in all
grades.

C. W. AEPPLER COMPANY
Oconomowoc, Wisconsin

HELLO, FOLKS!

HERE WE ARE AGAIN

Stevenson's Line-bred Goldens

To tell you that we are the best of honey producers; so gentle and quiet it is a real pleasure to work with us; are easy to queen; do not swarm until the hive is well filled.

We are really GOOD.

| | Queens | 2-Lb. | 3-Lb. | 4-Lb. |
|----------|--------|--------|--------|--------|
| 1 to 24 | \$.90 | \$2.95 | \$3.80 | \$4.60 |
| 25 to 99 | .85 | 2.80 | 3.60 | 4.35 |
| 100 up | .80 | 2.65 | 3.40 | 4.10 |

If interested, write

STEVENSON'S APIARIES
WESTWEGO, LOUISIANA

Italian Bees & Queens

After nine year's experience with large shippers I have picked the methods of putting out quality bees and queens. Satisfaction guaranteed.

| | Queens | 2-Lb. | 3-Lb. |
|------------|--------|--------|--------|
| 1-24 | \$.90 | \$2.95 | \$3.80 |
| 25-99 | .85 | 2.80 | 3.60 |
| 100 to 499 | .80 | 2.65 | 3.40 |

KERMIT ANDERSON

OPP, ALABAMA

Sturdy Italians

Bred and interbred with daughters of stock bred for resistance, 90% Three-Banded. Heavy laying stock.

| | 2-Lb. | 3-Lb. |
|------------|--------|--------|
| 1 to 24 | \$2.90 | \$3.50 |
| 25 to 49 | 2.75 | 3.35 |
| 50 or over | 2.60 | 3.20 |

NEAL'S APIARIES

Lettsworth, Louisiana

FRANKLIN'S

"FROM THE DEEP SOUTH"

ITALIAN BEES AND QUEENS

2-Lb. Pkg. with Queen \$2.95
3-Lb. Pkg. with Queen 3.80
Queens, each .90

J. D. FRANKLIN
2815 Comus Court, New Orleans, La.

V . . .

THREE BANDED ITALIAN BEES

If you are in the market for package bees in 1943, and want the best for your money, then be wise and buy my three banded Italian bees. Write for prices.

J. P. CORONA Box 124 Kenner, La.

Package Bees & Queens

THREE-BANDED ITALIANS

For quality and prompt service.
3 lbs. package with queen at \$3.80
2 lbs. package with queen at 2.95
Extra queens at .90

We specialize in queens, 20 yrs. in bees

Dupuis Apiaries Andre Dupuis, Prop.
Breaux Bridge, La.

Caucasian Package Bees and Queens

Standard for gentleness. Dependable for honey gathering. Prices for 1943 with queen in each package.

| | Twos | Threes | Extra Queens |
|-------------|--------|--------|------------------|
| | Each | Each | Postpaid Each |
| 1 to 49 | \$3.25 | \$4.00 | \$.95 |
| 50 to 99 | 3.10 | 3.85 | .90 |
| 100 or more | 2.95 | 3.70 | .85 |

Package bees sent Via Express Collect.
We will do our best to please.

Bolling Bee Co. Bolling,
Alabama

Lest You Forget

the good rule to go by—Buy your
Italian Bees and Queens from

Alabama Apiaries

URIAH, ALA., R. F. D.

2-lb. pkg. with queen, 1 to 24 \$2.95
2-lb. pkg. with queen, 25 to 100 2.80
3-lb. pkg. with queen, 1 to 24 3.80
3-lb. pkg. with queen, 25 to 100 3.60
Queens, 1 to 24, 90c—25 to 100, 85c
100 up, 80c

Our aim—
Once a Customer, Always a Customer

ANDERSON'S QUALITY QUEENS

ALSO PACKAGE BEES

| | Queens | 2-Lb. Pkg. | 3-Lb. Pkg. |
|-------|------------|---------------|---------------|
| 1-24 | \$.90 ea. | \$2.95 | \$3.80 |
| 24-99 | .85 ea. | 2.80 | 3.60 |

For queenless packages deduct price of queen.

Write for prices on larger orders.
We guarantee live delivery and perfect satisfaction. Ask your neighbor or just try 'em.

B. A. ANDERSON & CO.
OPP, ALABAMA

Albert Koehnen's First Quality Italian Bees

| | |
|----------------|--------|
| 2-Lb. Packages | \$2.90 |
| 3-Lb. Packages | \$3.80 |
| Queens | \$.90 |

25 or more packages or queens; terms 10 per cent down to book your order, balance 10 days before shipment. Write for reference.

ALBERT KOEHNEN, Live Oak, Calif.

PACKAGE BEES AND QUEENS

Gentle three band Italian stock that have stood the test for 20 years, and made me a host of friends. They will do as much for you. In addition to above strain, I will be able to produce a limited number of packages headed with daughters of queen bred for resistance to A. F. B.

As I have never had any disease in my bees I cannot attest to their resistance to A. F. B. but am breeding from daughters of queens bred for resistance. They are a bit harder to handle than Italians, but from a honey making standpoint I don't think they can be excelled.

Prices Either Strain

| | Queens | 2-Lb. | 3-Lb. | 4-Lb. |
|---------|--------|--------|--------|--------|
| 1- 24 | \$.90 | \$2.95 | \$3.80 | \$4.60 |
| 25- 99 | .85 | 2.80 | 3.60 | 4.35 |
| 100-499 | .80 | 2.65 | 3.40 | 4.10 |
| 500 up | .75 | 2.50 | 3.20 | 3.85 |

Place your order early and avoid delay.

A. E. SHAW, Shannon, Mississippi



KELLEY—"The Bee Man"

WALTER T. KELLEY CO., Paducah, Kentucky

QUICK

Shipment from Stock

| | |
|-----------------------|--------|
| 50 5-Lb. Tin Pails | \$2.90 |
| 50 10-Lb. Tin Pails | 4.30 |
| 16 60-Lb. Square Cans | 5.40 |
| 72 5-Lb. Glass Pails | \$5.00 |
| 144 5-Lb. Glass Pails | 9.95 |

Gaspard's Quality Italian Package Bees and Queens

We urge you to book your order early, save the rush and reserve shipping date, only 20 per cent will book your order, balance at shipping time. Prices as follows:

| Queens | 2-Lb. | 3-Lb. | 4-Lb. | 5-Lb. |
|-------------|--------|--------|--------|--------|
| 1 to 9 | \$.95 | \$2.90 | \$3.75 | \$4.55 |
| 10 to 24 | .90 | 2.75 | 3.55 | 4.30 |
| 25 to 49 | .85 | 2.65 | 3.40 | 4.10 |
| 50 to 99 | .80 | 2.55 | 3.30 | 4.05 |
| 100 or more | .75 | 2.50 | 3.25 | 4.00 |

Safe live delivery guaranteed, and a health certificate with each shipment.

J. L. GASPARD : Hessmer, La.

Brazos Valley Apiaries
Cameron, Texas

Bees and Queens

Brazos Valley Apiaries
Cameron, Texas

ITALIAN OR CAUCASIAN

| | 1 to 5 | 6 or more |
|-----------------------------|-------------|-------------|
| 2-Lb. bees with young queen | \$3.00 each | \$2.75 each |
| 3-Lb. bees with young queen | 3.80 each | 3.60 each |

Over a quarter of a century in the same place, in the same business is my record.
My motto: I will expect to do business with you again.

H. E. GRAHAM : CAMERON, TEXAS

THE POSTSCRIPT

My young grandson, Franklin 2nd., wants fifty chickens to start the spring. His mother suggests that two dozen would be enough at first. Franklin argues that we can never win the war that way. Even the rising generation appears to be geared to wartime pressure.

— V —

Frank Summers, apiary inspector of Roswell, New Mexico, reports that sainfoin does well in his locality. He plans to plant a new plot this spring, and as little if any seed is now available, offers to send plants from his present bed for fifty cents per dozen plus postage to those who wish to try the plant.

Summers reports that while frost in winter kills the alfalfa, sainfoin remains green all winter. A number of enthusiastic reports have come from those who have tried sainfoin.

— V —

Tunis is very much in the news of late and our boys who are fighting there must find many strange sights. We are told that girls are fattened in anticipation of marriage by feeding on seeds of fenugreek, milk and honey while taking no exercise. Arab young men are said to admire plump ladies and instead of making an effort to acquire a stream lined form as do American girls, the ladies do their best to take on flesh.

— V —

A letter from an Illinois soldier in Tunis tells something of the bees in that far country. He says, however, that there have been matters of so much greater importance to attend to that he has had no opportunity to study local beekeeping as closely as he has a great desire to do. He looks forward to a more favorable opportunity after the Germans have left the country. The bees are black and kept in hives made of straw.

— V —

Harry A. Pease wrote from Mission, Texas, on February 3rd that the huisache and some citrus trees had started blooming and that the queens were laying. He planned to start a few queen cells for making increase about March first.

In a letter dated two days earlier, W. C. Barnard wrote from Glennville, Georgia, that the first pollen was brought in on January 16th and that his bees now had brood in four frames. Spring with them arrives from one to two months ahead of the time it reaches us.

— V —

M. B. Corliss, of Chenoa, Illinois, reports that after three years of trial with Zofka clover in his garden he is convinced it is the greatest feeding clover known. When growing with alsike, white Dutch clover and alfalfa, the rabbits ate it close to the ground while hardly touching the others. The same thing was apparent in our test plots. The rabbits were so eager for the Zofka clover that we found it difficult to protect it long enough to permit seeding. Unfortunately the Zofka clover does not seem well adapted to our climate and we have found great difficulty in maintaining a stand. Several experiment stations have been using it for crossing with strains of red clover which are acclimated to this country.

— V —

Herman Maurhard writes that anise-hyssop is covered with bumblebees but attracts few honeybees at Southampton, New York. In the midwest it is about the most consistently attractive bee plant that we have found. Perhaps it may be like sweet clover and yield less freely in the humid eastern climate. Out here the sweet clover yields very heavily but eastern beemen seldom report large crops of honey from sweet clover. It will be interesting to learn whether the environmental requirements of anise-hyssop and sweet clover are similar.

The first mention of flax as a source of nectar that I have seen is found in the new bulletin, "Nectar and Pollen Plants of Oregon," by Scullen and Vansell. They state that it is visited freely by bees for both nectar and pollen. For years I have been seeking information regarding flax as a source of honey, without success.

— V —

In 1928, R. A. Morgan, of Vermillion, South Dakota, secured 803 sections of comb honey from one colony of bees which he thought was the world's record. I do not recall having heard of a larger yield and wonder if any of our readers have exceeded this crop. Morgan's hive produced nearly double the best return that I have ever been able to secure from a single hive.

— V —

Prof. H. A. Schuette, of the University of Wisconsin, says that the nutritive value of honey varies with the color. Some honeys are more nutritious than others by reason of the small amount of copper, iron and manganese found therein, the percentage depending upon the source of the nectar. According to Prof. Schuette, although white honey is often preferred in the market, the darker honey, is considered more healthful. We repeat this item for the benefit of our friend Bohne of Louisiana who refuses to apologize for his dark honey which has been dubbed "waffle-paste."

— V —

At the time of the opening of the Egyptian tombs a few years ago there was much newspaper comment on the finding of a jar of honey which was said to be still liquid and still good. Those of us who had tried keeping samples of honey over a period of years were very skeptical about that story after seeing what happened to honey in ten to twenty years. Later Lord Carnovon corrected the story and announced that it was not honey but castor oil which he found.

— V —

The late George Watt reported that his method of stopping robbing was to crush fresh leaves of catnip about the hives from which he was removing honey or where he was making divisions for increase. By rubbing green catnip leaves wherever the robbers were attracted he found that they were prompt to leave. This is worth remembering since catnip grows so commonly around apiary sites and if it works as well as Watt reported it is a simple remedy.

— V —

When looking in the postal guide I was surprised to find that there is a post office by the name of "BEE" in each of four states, Kentucky, Nebraska, Virginia and West Virginia. There is also a "Bee Branch" in Arkansas, a "Beehive" in Montana and a "Bee House" in Texas, as well as a "Bee Lake" in Mississippi, a "Bee Log" in North Carolina and a "Bee Ridge" in Florida. This does not end the list of bees either for there is a "Bee Rock" and a "Bee Spring" in Kentucky along with the well-known "Beeville" in Texas. Certainly the bees were not neglected when naming the post offices of the U. S. A.

— V —

With reference to the article on lespedeza in the February number, Edgar Abernethy, of Stanley, North Carolina, writes that he has not secured any surplus from lespedeza during the last six years from 1937 to 1942 inclusive. Although there has been no reduction in acreage and at times the bees seem to work the blossoms vigorously there has been no appreciable gain. He is unable to account for the surplus in earlier years as mentioned in the article in February. He reports also that sourwood has failed to yield for him of late. We still have much to learn about the behavior of our honey plants and the reason for the great variation in yield from year to year and even from week to week.

FRANK C. PELLETT.

Early Shipments!

We still have room for a few hundred packages for shipment to territory where packages are wanted for

March 15th to April 5th

For prices, see February issue of this publication.

WRITE OR WIRE TODAY

The Puett Company
Hahira, Ga.

Root Service from Chicago

For Nineteen Forty-three

PRODUCTION

is the watch-word. This business will help. We will do so by stocking needed supplies in advance as they may be available.

We cannot obtain all items but will approach a complete list as much as possible.

Do you need hives, supers, frames, sections, hive parts, and foundation? Write us about your needs. Try us on your list of things wanted. We will do the best possible with it.

We want honey and beeswax. Will be glad to receive for cash or trade.

A. I. Root Co. of Chicago

224 West Huron Street
Chicago, Ill.

47 Years' Experience

We are manufacturers of beekeepers' supplies and can promptly furnish everything a beekeeper needs; SECTIONS, HIVES, SHIPPING CASES, etc.

The manufacture of one-piece sections is one of the specialties upon which we pride ourselves. We use only the choicest SECOND GROWTH basswood in the manufacture of sections, and all are perfect in finish and workmanship.

WRITE FOR OUR BEE SUPPLY CATALOG AND COMPARE PRICES BEFORE YOU BUY.

MARSHFIELD MFG. CO.
MARSHFIELD, WISCONSIN

Established 1896

Package Bees and Queens

Order our Italian Bees and Queens and get the best. Prices for young laying queen and package bees with queen as follows:

| Quantity | Queens | 2-Lb. | 3-Lb. | 4-Lb. | 5-Lb. |
|-----------|--------|--------|--------|--------|--------|
| 1 to 20 | \$.90 | \$2.95 | \$3.80 | \$4.60 | \$5.35 |
| 21 to 49 | .85 | 2.75 | 3.55 | 4.30 | 5.00 |
| 50 to 100 | .80 | 2.60 | 3.35 | 4.05 | 4.70 |
| 100 up | .75 | 2.50 | 3.20 | 3.85 | 4.45 |

B. J. Bordelon Apiaries
Moreauville, Louisiana

ROOT Bee Supplies

Meet War-time Demand

Beekeepers face an enormous task for the year. An increase in honey, wax, fruit and legumes will call for the fullest use of beekeeping equipment. Due to shortage of material, hive parts will serve double duty where possible.

ROOT QUALITY hives, supers and parts, because of their *standard* measurements and fine workmanship, can be interchanged and made to do double duty.

ROOT QUALITY Extractors are built to give years of dependable service without any necessary repairs.

SERVING THRU TWO WARS

"I am sending by parcel post a broken part to my extractor. I cannot find it in the catalog. The extractor is the old NOVICE two-frame hand reversible. Have used it for 36 YEARS and this is the first needed repair."
7-8-42

F. C. HINKLY,

Skowhegan, Me.

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Some Repair Parts Available
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MAIL YOUR ORDER EARLY

THE A. I. ROOT CO.

MEDINA, OHIO

New York Office, 12 W. 21st Street



**SHIP YOUR BEESWAX
TO MEDINA TODAY**

Your beeswax is insured in our warehouse until released for sale. . . We pay top market price